Proceedings of
the
Twentieth Meeting of the
Central Coconut Committee
Helt at Pur[illegible] on the
28-9-19[illegible]4.

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PROCEEDINGS
OF THE
TWENTIETH MEETING
OF THE
INDIAN CENTRAL COCONUT COMMITTEE

Held at Puri on the 28th September, 1954.

Printed at the Mar Louis Memorial Press, Ernakulam-1.

1957

A view of the 20th meeting of the Indian Central Coconut Committee
held in the Nari Sangh Sadan Hall, Puri (Orissa) on the 28th September, 1954.

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PROCEEDINGS

of the 20th meeting of
the Indian Central Coconut Committee
held at Nari Sangh Sadan, Puri in the
afternoon of Tuesday, the 28th September, 1954.

The following were present:-

1. Sri K. R. Damle *(President)*
2. Sri K. P. Madhavan Nair *(Vice-President)*
3. Sri P. B. Kurup
4. Sri B. M. Peter
5. Sri C. Thomas
6. Sri Thariathu Kunjithomman
7. Sri K. P. Amrithanatha Iyer
8. Sri V. J. Joseph
9. Sri Jagannath Misra
10. Sri S. K. Kallapur
11. Sri D. N. Mukherji
12. Sri Kamal Krishna Das
13. Sri V. Venkatappa
14. Sri K. G. S. Bhandari
15. Sri C. H. Lingadevaru
16. Sri A. Appu
17. Sri P. T. John
18. Sri K. Gopalan *(Secretary)*

Visitors:-

1. Deputy Minister for Agriculture, Government of Orissa.
2. Chief Secretary to the Government of Orissa.
3. Sri B. S. Mahanti (Development Secretary to the Government of Orissa).
4. Sri V. S. Tilak (Director of Agriculture and Food Production, Orissa).

5 Dr. U. N. Mahanti (Headquarters Deputy Director of Agriculture, Orissa).

6. Sri C. Jagannath Rao (Cotton-cum-Oilseeds Specialist, Nandyal).

7. Sri A. Palaniappan (Joint Registrar of Co-operative Societies, Madras).

8. Sri S. S. S. V. Rao (Agricultural Research Officer, Orissa).

9. Mr. G. Farbstein of Messrs. Lever Brothers.

10. Sri A. K. Das Gupta (Coconut Development Officer, West Bengal).

11. Sri R. N. Dwivedi (Senior Marketing Officer, Orissa).

12. Sri Panda (Deputy Director of Agriculture, Orissa).

13. Sri Panigrahi (Representing the Registrar of Co-operative Societies, Orissa).

14. Sri C. M. John (Director, Central Coconut Research Station, Kasaragod).

15 Dr. K. P. V. Menon (Joint Director, Central Coconut Research Station, Kayangulam).

The following members had expressed their inability to attend the meeting:–

1. The Agricultural Commissioner with the Government of India.

2 The Agricultural Marketing Adviser to the Government of India.

3 Sarvasri V. V. Joseph, C. R. Seshadri, C. R. Iyyunni and S. N. Dwivedy.

Requesting Shri Radhanath Rath, the Minister for Finance, Government of Orissa, to inaugurate the meeting of the Committee, Shri K. R. Damle, the President of the Committee, spoke as follows:-

I have great pleasure to welcome you to the 20th meeting of the Indian Central Coconut Committee. The Committee decided to hold this meeting here in Puri not only because the Government of Orissa were good enough to invite us to this place, but because it has been the practice of the Committee to hold, as far as possible, one meeting every year outside its headquarters, in one or other of the coconut growing States, so that the occasion may serve to focus attention on the condition of coconut cultivation in that particular State and the Committee may be enabled to get a clearer grasp of the problems facing the coconut industry in the State. The Committee is grateful to the Government of Orissa for making such good arrangements for holding this meeting as well as for organising the exhibition at the Town Hall. The Committee is also thankful to you, Sir, for kindly consenting to be present here today and to inaugurate this session.

We shall be considering at this meeting certain proposals and schemes for inclusion in the Second Five Year Plan of the Government of India and I think it would not be out of place if I enumerate the basic problems facing the Indian Central Coconut Committee and the attempts it has been making to solve them, before referring to the main features of the proposals we shall be considering for recommendation to the Government of India for inclusion in the Second Five Year Plan.

India has an area of about 15½ lakhs of acres under coconut and produces about 340 crores of nuts per annum, and is the second largest producer of coconuts in the world. But the fact remains that she is not producing enough for her needs. Coconuts, copra and coconut oil are all used for edible purposes as well as for industrial purposes like the manufacture of soaps, hair oil and other toilet articles. The result is that we have to import considerable quantities of copra and coconut oil from abroad particularly from Ceylon.

The most important problem the Central Coconut Committee has to tackle is the stepping up of the production of coconuts in India so that the gap between supply and demand is bridged as early as possible. The Committee has been attacking the problem both from the short and long term points of view. Short-term measures have included propaganda among coconut growers to persuade them to adopt scientific methods of cultivation and manuring to increase the yield per acre of existing gardens and practical demonstration of the value of regular cultivation and manuring and of pest and disease control and the promotion among coconut growers of the green manure habit. Among long-term measures have been the establishment of two Central Coconut Research Stations, one for the conduct of fundamental research on breeding, manuring, cultivation and other aspects and the other for investigations connected with the pests and diseases of the coconut palm and the financing of Regional Research Stations for conducting cultural and manurial experiments of regional importance and of nurseries for the distribution of quality coconut seedlings among coconut growers. The Committee also finances schemes for the development of coconut cultivation in West Bengal and the Andaman Islands and has recently sanctioned a development scheme in Hyderabad.

The proposals that will be considered at this meeting for being forwarded to the Government of India, for inclusion in the Second Five Year Plan are for expansion of work on the lines which I have indicated now aiming at a 30 per cent increase in production at the end of the Plan period. The Central Coconut Research Stations at Kasaragod and Kayangulam are proposed to be converted into Research Institutes with expanded programmes of work. The Committee is at present giving grant-in-aid to 26 coconut nurseries with an annual production target of about 5,00,000 seedlings. It is proposed to start 19 more nurseries for the Second Five Year Plan period with an annual production target of 1,25,500 seedlings. We are financing at the moment three regional coconut research stations in Travancore-Cochin. The Regional Coconut Research Station in Orissa, which unfortunately had to be closed down, has been proposed to be re-started soon on a more suitable site. Schemes have been sanctioned for setting up Regional Coconut Research Stations in Bombay and Andhra and they are expected to be established shortly. A similar scheme for Assam, a revised statement of expenditure regarding which will be considered at this meeting, will shortly be brought into being in that State. It is proposed to start under the plan four more Regional Research Stations, two in Madras State and two in the Mysore State.

Emphasis has been laid on demonstration work under the Plan. It is proposed to have 48 demonstration centres in Travancore-Cochin State with 96 plots, 7 centres in Madras with 21 plots, 6 centres with 18 plots in Andhra, 8 centres with 8 plots for each of Bombay and Orissa and 9 centres in the Laccadive Islands. A demonstration scheme for Mysore has already been sanctioned by the Committee and is expected to start functioning soon.

The leaf-eating caterpillar of the coconut, *Nephantis serinopa*, is a serious pest of the coconut and one of the methods of controlling it is to rear and release certain parasites which are its natural enemies. The Committee is financing at present two stations, one at Kasaragod in Madras State and the other at Razole in Andhra State, for rearing and releasing parasites and it has sanctioned a scheme under which five such stations will be started in Travancore-Cochin State. Under the Plan three more stations in Madras and two more in Andhra are also proposed to be set up. Three stations in Bombay and one in West Bengal are also to be established.

To convey the results of Research to the growers of coconut and give them practical advice on problems confronting them, it is necessary to have an efficient propaganda staff. In achieving the Committee's objective of stepping up coconut production propaganda will have to play a significant part. A Coconut Propaganda Officer, half the cost of whose appointment is met by the Committee, is now functioning in the Travancore-Cochin State and in the absence of any other arrangement the Agricultural Assistant in the Committee's office has been doing propaganda work among the coconut growers of Malabar District in Madras and often farther afield in Tanjore District, Mysore State, Andhra and Orissa. Under the Second Five Year Plan, Coconut Propaganda Officers are proposed to be appointed for Madras and Andhra and Coconut Propaganda-cum-Development Officers for Mysore and Orissa.

A rapid survey of Saurashtra has revealed that there is considerable scope for coconut cultivation in the southern coastal strip of that State. Provision is, therefore, being made under the Second Five Year Plan to appoint a Coconut Development Officer for the State, to start a nursery for the distribution of quality seedlings, to establish a Regional Coconut Research Station and to lay out some demonstration plots.

Provision is also being made to put through the Plan period a coconut development scheme in the Andamans which will be more or less on the lines of development schemes at present being worked there but with much wider scope.

It has been estimated that at least a 5 per cent increase in coconut production can be effected by the control of the pests and diseases responsible for lowering coconut yield. In Travancore-Cochin State which has an area of 6,67,379 acres under coconut and which has the largest coconut area in the Indian Union, the leaf and root diseases have been responsible for quite a substantial reduction in coconut production. A comprehensive scheme for spraying coconut palms with copper fungicides to control the diseases is, therefore, proposed to be put into execution under the Second Five Year Plan. A slight strengthening of the Plant Protection staff in Mysore is also contemplated. The organisation in Mysore State of coconut crop competition and the celebration of one day in the Vanamahotsava Week as Coconut Day, by the Research Stations, Nurseries and Parasite Breeding Stations is also contemplated under the Second Five Year Plan.

The Committee had some time ago sanctioned pilot schemes for the correct estimation of area and yield statistics of coconut in Mysore, Bombay, Madras and Travancore-Cochin. Only the Mysore scheme has been put into effect. The schemes for the other States have now been brought under the proposed Five Year Plan, unless they are executed earlier.

Certain enquiries into the cost of cultivation of coconut have already been undertaken by the office of the Committee and it is proposed to do these investigations in a more comprehensive manner in Travancore-Cochin, Malabar and South Kanara under the Plan besides conducting statistical surveys for assessing the results of the schemes included under the Second Five Year Plan. Schemes for the development of coconut cultivation in Saurashtra, Hyderabad and the Andamans are also proposed to be worked under the Plan.

The Second Five Year Plan will lay emphasis on the marketing of agricultural commodities. Accordingly, it is proposed to organise co-operative marketing societies—2 in Travancore-Cochin State, 9 in Madras, 4 in Mysore, 3 in Andhra, 5 in Bombay and 6 in Orissa. Warehousing facilities are also proposed to be provided. Twelve warehouses are proposed for Madras, four for Mysore, six in Andhra and two in Bombay.

The award of a Rs. 10,000 prize to the inventor of the best time-saving dehusking machine, the popularisation of more efficient village ghanis for crushing copra the appointment of a Marketing Officer to revise and bring up-to-date the "Report on the Marketing of Coconuts and Coconut Products in India" issued by the Government of India in 1942 and to attend to the marketing aspects of coconut development, an Editor for the Committee's publications and of a Circulation Promotion Officer for the Committee's periodicals are also proposed under the Plan.

As regards the sharing of the expenditure on the various proposals which I have enumerated just now the suggestion is that except in regard to certain items such as Central Coconut Research Stations, estimation of area and yield statistics, assessment of results etc., which will be borne entirely by the Government of India, the recurring expenditure is proposed to be shared equally by the Central Government and the State Government concerned in view of the fact that the receipt from the coconut cess which is the normal income of the Indian Central Coconut Committee is just enough to meet the Committee's ordinary commitments. The total cost of the various proposals for the 5-year period of the Plan is estimated to be approximately a crore of rupees of which the Central Government's share is put down at nearly Rs. 58.0 lakhs. The remainder will be borne chiefly by the State Governments.

Although Orissa has only about 11,000 acres under coconut, there are possibilities for expansion and the Committee has taken the liveliest interest in the development of coconut industry in this State. There are three nurseries functioning here with grant-in-aid from the Committee and a Regional Research Station will be started soon in place of the one closed down last year. Under the Second Five Year Plan, Orissa may get two more nurseries, 8 demonstration centres, a Coconut Development-cum-Propaganda Officer and 3 Co-operative Coconut Marketing Societies. Efforts will also be made to demonstrate to coconut growers of the area, copra making and oil extraction. I trust that the growers of coconut in the State will take advantage of the facilities that will be provided under the Plan and have a good record of progress to show at the end of the Plan period.

It is my hope that all the recommendations that we will make here will be accepted by the Central Government and included in the Second Five Year Plan. But the success of the several proposals and the attainment of the objective of increased production will depend on how the State Governments go about implementing the schemes and I have no doubt they will do their best in the matter.

Considering that this is the first time that the Committee is holding a meeting in Orissa and that this State is comparatively not so advanced in coconut cultivation as some other States like Travancore-Cochin and Madras, the Committee has organised in Puri Town Hall an exhibition of coconut and coconut products. I am to express the hope that the exhibition will prove interesting and instructive and that it will serve to stimulate thought on coconut cultivation in Orissa.

The financial condition of the Committee is at present unsatisfactory and it is finding difficulty to finance even its current schemes in spite of the expected increase in its income. As you will see from the Budget Estimates for 1955-56 the closing balance of Rs. 1,84,762 at the end of the year will be achieved only if the Government of India see their way to advance to the Committee a sum of Rs. 5 lakhs from funds under the First Five Year Plan or as a gift for construction of the Laboratory Building at the Central Coconut Research Station, Kasaragod and for certain other essential items of work at Kasaragod and Kayangulam. Although the Indian Coconut Committee (Amendment) Act of 1952 has made it obligatory on all power mills to pay cess on the copra crushed by them, the revenues coming in have not yet begun to show any appreciable increase over what they were and it may be some time before we could take a more optimistic view of our financial position. The position at the moment is far from encouraging.

In this context, I think it is inadvisable to think in terms of reducing the rate of levy of the copra cess. On the other hand I think there is every reason for attempting to tap fresh sources of revenue and I would request you to consider seriously the proposal to levy cess on edible copra, which if it becomes practicable, will bring to the Committee an annual revenue of about Rs. 2½ lakhs. I have little more to say and I would now request you, Sir, to inaugurate this session of the Indian Central Coconut Committee.

Shri Radhanath Rath, the Minister for Finance, Orissa, in inaugurating the meeting, observed as follows:-

I consider it a great privilege to have been asked by you to inaugurate this 20th meeting of your Committee which you are holding for the first time in this holy seat of Lord Jagannath. While according you a hearty welcome to this land of ours, I would only remind you that we have had so far no occasion not only to get you in our midst but also to show you round the green coconut gardens we have in this part of our country which are fast deteriorating owing to various difficulties. I do not know why you had so long been hesitating to extend your affectionate look towards us, to lend your willing ears to us and to have a glass of that nectar of *narikela* which our ancestors and ourselves had and have been growing for centuries past, and which had so long been in need of your loving care and valuable guidance for all round development. Was it because you were afraid that our words would be deceptive and that the nectar of our *narikela* would be unconducive to your health? But no; this land of Utkal has ever been famous for its piety, religious catholicity, social equality, cultural dignity and its humble and sincere hospitality. Every particle of the dust of this holy land is sanctified by the mercy of Lord Jagannath, the Lord of the Universe. Various castes and communities merge here in one fraternity. Its offering (Mahaprasad), its Great Temple (Bada Deula), its grand Road (Bada Danda), its Gate way to Heaven (Swargadwara) and the three great presiding deities representing the three different colours of human race, all indicate not only the greatness of conception but also the intensity of devotion of our forefathers. Its art and architecture also illustrate the artistic glory which was achieved by our ancestors. I, therefore, believe that your kind visit to Puri is out of comradely sympathy and love for this land of Oriya people and is conceived to satisfy the great necessity of this part of the country, just as the English poet has said.

"I had a little nut-tree
    nothing would it bear
But a silver nutmeg
    and a golden pear;
The king of Spain's daughter
    came to visit me
And all because of my
    little nut-tree."

I believe that our little nut-trees have at last attracted you and would you kindly now, therefore, without any hesitation take this nectar of *narikela* as the symbol of her love and cordiality?

Coconut is a very important cash crop occupying an integral place in the economy of our country. The Union of India has got 1½ million acres under coconut cultivation. This is the second largest coconut growing area in the world next to the South-Sea islands. The existing production of our country is 3399 million nuts. This does not meet our requirements in full and there is a deficit of about 677.3 million nuts which works out to 20% of the present production. In fact the Planning Commission has directed that production of oils and fats of vegetable origin should go up by 0.4 million tons.

Realising the growing demand and the economic possibility of the coconut crop the Government of India considered it expedient to provide for the creation of a fund to be expended by the Committee specially constituted in this behalf for the improvement and development of the cultivation, marketing and utilisation of coconuts in India and passed an Act in 1944 known as the Indian Coconut Committee Act to give effect to the decision. As a result of this Act the Indian Central Coconut Committee was constituted with its headquarters at Alwaye. For the purpose of financing the Committee the Indian Coconut Committee Act provides for the levy of a cess on copra consumed in India whether produced in or imported from British Islands at such rates not exceeding Annas four per cwt. as the Central Government may after consulting the Committee fix in this behalf. The annual average income from the cess is expected to be about 6 lakhs of rupees.

Ever since its inception this Committee has been concentrating its attention on agricultural research on coconut cultivation, extension of area under cultivation by drawing the attention of the State Governments, financial aid for production of quality seedlings and setting up of Regional Research Stations with financial aid from its fund. Thanks to the activities of the Committee, about 4,78,000 selected seedlings are being distributed from State nurseries and 10,000 seedlings from the Central nursery at Kasaragod.

Orissa is one of the important coconut growing areas. The coconut cultivation is, however, mainly concentrated in this State only in the coastal districts of Puri, Cuttack, Balasore and Ganjam. The total acreage under coconut is 31,000 acres of which 4/5ths are concentrated around Sakhigopal in Puri. There are enormous possibilities for the extension of the area under coconut cultivation in view of the long coast line we have got and it may be possible to promote this cultivation on the banks of the Chilka lake. Unfortunately the cultivators of our State know very little about the scientific methods of coconut cultivation especially with reference to the manurial requirement and also the control of the different pests and diseases that affect the growth of the crop, with the result that the proportion of non-bearing trees under plantation is as high as 35% and the yield per tree is about 15 nuts whereas in places like Mysore it is as high as 40 nuts. In fact it has been found by research that by regular and systematic intercultivation and manuring the production can be increased by 20% and by control of pests 10%. There is, therefore, a crying need in our State for research, demonstration and propaganda on the various aspects of scientific cultivation of coconuts. In fact coconut can always find a place in the river and canal embankments as well as around the paddy fields, but for want of such propaganda this has not been done on an extensive scale. In fact our cultivators are very quick to realise the utility of putting into practice the results obtained by research as is evident from the fact that the demand for the improved seedlings produced at our nurseries has always exceeded the supply.

There are at present three coconut nurseries in Orissa at Cuttack, Puri and Balia in Balasore district. The Director of Agriculture, Orissa, has come up with a proposal this year for starting another nursery in Ganjam at Chatrapur. For the three nurseries that are now functioning, the Indian Central Coconut Committee contribute only one-third of the recurring cost and gets 40% of the receipts accruing from them. These nurseries are reported to have produced quality seedlings during the past three years as is given below:—

1951-52	1952-53	1953-54 (Upto October
15,735 seedlings	13,907 seedlings	12,604 seedlings

Research on coconut cultivation was given importance even from the time of Bihar Administration. In fact a farm was started at Puri, but it was later on abandoned probably due to the failure of the bulk of the plantations. Recently this farm was seen by the Director of the Central Coconut Research Station, Kasaragod, and he had stated that the soil was very suitable for such cultivation and the failure of the bulk of the plantations was probably due to ignorance of the method of plantation of coconut in sandy areas. Under the auspices of the Indian Central Coconut Committee a Regional Coconut Research Station was started at Sakhigopal during October, 1948. 64.8 acres of land were acquired for this purpose and the scheme was put into operation as a Five-Year Scheme. The main object of this Research Station was to experiment on the cultural and manurial aspects of coconut cultivation in Orissa and bring about improvement in the existing methods of cultivation and offer scientific advice. This scheme functioned till March 1953 after which it was decided by the State Government to discontinue the same. Ever since its inception this Research Station was a problem in so far as the results obtained from this station were far below the expectation. It was found out later on that the land selected for the farm was quite unsuitable for the purpose of the research station and if any satisfactory progress is to be made with the coconut cultivation the level of the ground will have to be raised by spending Rs. 300/- per acre. As expenditure of an additional lakh of rupees for this purpose was considered uneconomical, it was decided to drop the scheme. The total expenditure incurred on Sakhigopal Scheme was Rs. 1,21,423-3-0 and out of this Rs. 46,233-11-0 represents recurring expenditure and Rs. 75,189-8-0 represents non-recurring expenditure. The Indian Central Coconut Committee had agreed to meet 50% of the recurring expenditure.

At the suggestion of the Indian Central Coconut Committee it has been proposed to start a new Research Station in Sakhigopal and for this purpose a new site has now been chosen which is about three miles to the south of the old site. The area proposed is about 60 acres and consists of uncultivated land classified as forest areas. The ownership now vests in the Government after the abolition of the Zamindari. The site was inspected by the Director of the Central Coconut Research Station and he has observed that it appears to be quite suitable for coconut cultivation. It is hoped that this Committee will consider this sympathetically.

The main handicap in the export of coconut from Orissa is the absence of any processing facilities. The process of making copra will have to be demonstrated on a wide scale. Extraction of coconut oil can be organised as a cottage industry as is done in many parts of South India. The coir-making industry can easily be developed on a large scale with very little expenditure. In fact if the economic potentialities of coconut are fully exploited there can be an appreciable rise in the income of the cultivators of the coastal areas. But coconut cultivation here is not as advanced as, say, in Travancore-Cochin or Malabar and there does not seem to exist an adequate realisation of the possibilities of future expansion. The nut is mostly consumed in the fresh state. There is no copra-making or oil-crushing industry worth the name in the State. The husk is practically wasted and the shells, too, are not put to any proper use. I have no doubt that the introduction of processing of coconuts into copra and coconut oil should go a long way to counter the difficulties of railway transport. And I am glad to note that in the proposals for inclusion under the Second Five Year Plan you have included a scheme to demonstrate the methods of making copra and extracting oil from it. In addition to the sun-drying process of making copra, it would be useful, I think, to demonstrate the kiln-drying process also. Some kind of efficient kiln of suitable size and not too costly could, I think, be popularised with advantage.

Attempts are also being made to bring out an Oriya edition of the monthly "Bulletin" issued by the Committee simultaneously in English, Malayalam and Kannada has already [illegible] [illegible].

It is gratifying to see that this Committee, at this meeting, will be considering comprehensive programmes for the development of coconut cultivation during the Second Five Year Plan period and that Orissa will get provision for starting three nurseries, for laying out demonstration plots, appointing a Development-cum-Propaganda Officer and for demonstrating the coir making and oil extracting processes.

I have no doubt that our people in Orissa will take full advantage of all these and that the State will pull its weight in the common task of stepping up coconut production so that India may as early as possible become self-sufficient in this commodity.

I am sure your meeting here and your deliberations and the very attractive exhibition you have got up at the Town Hall will serve to focus attention to the extent they deserve and stimulate thought upon coconut cultivation in Orissa—its present condition and future possibilities—and will lead to substantial development and expansion of the coconut industry in the State. I have now great pleasure to declare open this the 20th Session of the Indian Central Coconut Committee

JAI HIND!

Subject No. 1 — Confirmation of the minutes of the 19th meeting.

The minutes were confirmed.

Subject No. 2 — Changes in the personnel of the Committee.

The election by the Council of States of Shri Surendranath Dwivedy as a member of the Committee in the place of Shri K. C. George and the fact that the Government of Andhra has, according to the Andhra (Adaptation of Laws on Union subjects) Order 1954, to nominate to the Committee two persons, one to represent the growers of coconut in the State and another to represent the Government were noted by the Committee.

Subject No. 3 — Retirement of members by rotation.

The Committee noted that seven of its members were due to vacate office on 31st March 1955.

Subject No. 4 — Election of a member of the Committee to serve on the Indian Council of Agricultural Research and its Advisory Board, as the Committee's representative.

The Committee unanimously elected Shri P. B. Kurup to serve on the Council as its representative.

Subject No. 5 — Proceedings of the meeting of the Finance Sub-Committee held on 15-7-1954.

The Committee accepted the recommendations of the Finance Sub-Committee. It also considered a letter received from the Director of the Ceylon Coconut Research Scheme, offering to inspect the copra kiln constructed at Badagara and tender advice with regard to its practical working towards the end of December, 1954 and decided that while thanking him for the offer he may be informed that in view of the fact that the work has to be got attended to quickly another officer of the Scheme may be asked to be deputed for the purpose, at a very early date.

Subject No. 6 — Action taken on the decisions of the 19th meeting of the Indian Central Coconut Committee regarding subjects included in the purview of the Agricultural Research Sub-Committee.

The Agricultural Research Sub-Committee's recommendation that the action taken on the decisions of the 19th meeting of the Committee be recorded was accepted by the Committee.

Subject No. 7 — Central Coconut Research Station, Kasaragod—progress report for the year ending 30-6-1954.

The Committee approved of the Agricultural Research Sub-Committee's recommendation that the progress report of the Central Coconut Research Station, Kasaragod, for the year ending 30-6-1954, be adopted.

Subject No. 8 — Central Coconut Research Station, Kayangulam—progress report for the year ending 30-6-1954.

The Agricultural Research Sub-Committee's recommendation that the progress report of the Central Coconut Research Station, Kayangulam, for the year ending 30th June, 1954, be approved, was adopted by the Committee.

Subject No. 9 — Central Coconut Research Station, Kayangulam—Post of Assistant Virus Pathologist—extension of term

The Agricultural Research Sub-Committee's recommendation that the post of Assistant Virus Pathologist, Central Coconut Research Station, Kayangulam, be extended for the present for a period of three years from the 31st December, 1954, was approved by the Committee.

Subject No. 10 — Central Coconut Research Station, Kayangulam—application for registration for M. Sc. degree (Research) of the Travancore University from Sri N. G. Pillai and Kumari V. G. Lily, Laboratory Assistants—President's permission for forwardal—ratification of—

The Committee approved of the Agricultural Research Sub-Committee's recommendation that the permission accorded by the President to forward the applications of Sri N. G. Pillai and Kumari V. G. Lily, Laboratory Assistants of the Central Coconut Research Station, Kayangulam, for registration as research students and candidates for M. Sc. degree (Research) of Travancore University and to Drs. K. M. Pandalai and K. P. V. Menon to be their supervising teachers, be ratified.

Subject No. 11 — Progress report on the Regional Coconut Research Stations Scheme in Travancore-Cochin State for the year ending 30th June, 1954.

The Committee accepted the Agricultural Research Sub-Committee's recommendation that the progress report on the Regional Coconut Research Stations Scheme, Travancore-Cochin State for the year ending 30th June 1954, be approved and that the Director of Agriculture, Travancore-Cochin State, be requested to furnish in his future reports on the scheme all the required information.

Subject No. 12 — Procedure to regulate the utilisation by research workers of the data collected in the research stations of the Committee or in schemes financed by the Committee for obtaining higher degrees or diplomas.

The Agricultural Research Sub-Committee's recommendation that the rules framed by the Secretary on the basis of those adopted by the Indian Council of Agricultural Research for the utilisation by research workers, employed in the Research Stations at the Committee or in schemes financed by it, of experiment data for obtaining higher degrees and diplomas, be adopted, w approved by the Committee

Subject No. 13 — Progress report on the scheme for the development coconut cultivation in West Bengal

The Agricultural Research Sub-Committee's recommenda tion that the progress report on the coconut development scheme West Bengal, for the year ending the 30th June 1954, be approved, was endorsed by the Committee.

Subject No. 14 — Scheme for the development of coconut cultivation in West Bengal - location of headquarters of the Coconut Development Officer.

The Committee adopted the Agricultural Research Sub-Committee's recommendation that in view of the reasons advanced by the Director of Agriculture, West Bengal, the headquarters of the Coconut Development Officer, be retained at Tollygunge.

Subject No. 15 — Progress report on the scheme for the expansion of coconut nursery work in Travancore for the year ending 30-6-1954.

The Agricultural Research Sub-Committee's recommendations (1) that the progress report be approved, (2) that experiments to study the effect of wettable D. D. T. against white ant attack in nurseries be conducted in those nurseries where there is incidence of termite attack, and (3) that experiments on the wilting of seedlings aged 9, 12, 15 and 18 months be conducted, one age group being experimented upon during a particular season, were approved by the Committee.

Subject No. 16 — Progress report on the coconut nursery scheme, Irinjalakuda (Travancore-Cochin State) for the year ending 30-6-1954.

The Committee accepted the Agricultural Research Sub-Committee's recommendation that the progress report on the coconut nursery scheme, Irinjalakuda, for the year ending 30-6-1954, be approved.

Subject No 17 — Progress report on the coconut nursery scheme, Ollukkara (Travancore-Cochin State) for the period ending 30-6-1954.

The Agricultural Research Sub-Committee's recommendations that the progress report on the coconut nursery scheme, Ollukkara for the period ending 30-6-1954, be approved and the Director of Agriculture, Trivandrum, requested to arrange to get future reports prepared in the usual form giving all the required particulars about the scheme were endorsed by the Committee.

Subject No 18 — Scheme for the establishment of a Coconut Nursery at Wadakkancherry, Travancore-Cochin State.

The Committee adopted the Agricultural Research Sub-Committee's recommendations (1) that the scheme be approved (2) that the Director of Agriculture, Travancore-Cochin State, be requested to arrange to put the nursery under the charge of a full-time Fieldman (3) that the Committee agree to meet a net expenditure of Rs 5,070 for the 5-year period of the scheme and (4) that the provision made for the purchase of seedlings in the 5th year of the scheme be deleted.

Subject No 19 — Progress report on the Comprehensive Coconut Nursery Scheme, Madras, and the Coconut Nursery Scheme Maradur (Tiruchirapally District) for the year ending 30-6-1954.

The Agricultural Research Sub-Committee's recommendations that the progress report on the comprehensive coconut nursery scheme, Madras and the coconut nursery scheme, Maradur (Tiruchirapally District) for the year ending the 30th June, 1954, be approved and the Director of Agriculture, Madras State be requested to forward a separate scheme for consideration of the Committee for carrying out "Progeny Studies" as such studies by their very nature will have to be carried on for a long time if any conclusive results are to be obtained were approved by the Committee.

Subject No 20 — Comprehensive Coconut Nursery Scheme, Madras—arrangements for supervision and control.

The Committee endorsed the Agricultural Research Sub-Committee's recommendation that the Madras Government's proposal that supervision and control of the Comprehensive

Coconut Nursery Scheme, Madras be entrusted to the Superintendent, Agricultural Research Station, Nileshwar, be accepted.

Subject No 21 — Progress report on the coconut nursery schem Hebbal (Mysore State) for the year ending 30-6-1954.

The Agricultural Research Sub-Committee's recommenda tion that the progress report be approved and a recommendatio made to the Mysore Government that the nursery work b concentrated at one centre instead of at three centres if the sta for the work consisted of only one Botanist and one Fieldman wa adopted by the Committee as also their recommendation that if however, there was other departmental staff for those three centres in addition to the Botanist and the Fieldman, there was no objection to the three centres.

Subject No 22 — Progress report on the comprehensive coconut nursery scheme, Andhra State for the year ending 30-6-1954.

The Committee accepted the Agricultural Research Sub-Committee's recommendation that the progress report on the comprehensive coconut nursery scheme, Andhra, for the year ending 30-6-1954, be approved.

Subject No 23 — Progress report on the coconut nursery scheme at Kumta, Bombay State for the year ending 30-6-1954.

The Agricultural Research Sub-Committee's recommendation that the progress report on the coconut nursery scheme, Kumta for the year ending 30-6-1954 be approved, was endorsed by the Committee.

Subject No. 24 — Progress report on the coconut nursery scheme at Nandgaon (Bombay State) for the year ending 30-6-1954.

The Agricultural Research Sub-Committee's recommendations that the progress report on the coconut nursery scheme, Nandgaon for the year ending 30-6-1954, be approved and the Bombay Government requested to ensure that the target of production is reached in future years, were endorsed by the Committee.

Subject No 25 — Progress report on the coconut nursery scheme in West Bengal for the year ending 30-6-1954.

The Committee adopted the Agricultural Research Sub-Committee's recommendation that the progress report be approved.

Subject No 26 — Progress report on the coconut nursery scheme at Kahikuchi (Assam) for the year ending 30-6-1954.

The Agricultural Research Sub-Committee's recommendation that the progress report be approved was accepted by the Committee.

Subject No. 27 — Progress report on the scheme for the maintenance of a collection block of representative varieties of coconut palms in Assam State for the period 1-1-1954 to 30-6-1954.

The Committee endorsed the Agricultural Research Sub-Committee's recommendations that the progress report be approved and that at least 10 seedlings be planted in each of the varieties so that their relative merits may be compared adequately.

Subject No 28 — Progress report on the III extension of the scheme for the spraying of coconut trees for the period 1-12-1952 to 30-11-1953.

The Agricultural Research Sub-Committee's recommendation that the progress report be accepted was approved by the Committee.

Subject No. 29 — Progress report for six months (1-12-1953 to 31-5-'54) on the IV extension of the scheme for spraying of coconut trees to control the leaf disease

The Committee adopted the Agricultural Research Sub-Committee's recommendation that the progress report on the scheme for the period 1-12-1953 to 31-5-1954 be approved.

Subject No. 30 — Proposals for the extension (V) of the scheme for the spraying of coconut trees to control the leaf disease for one year from 1-12-1954 to 30-11-1955.

The Committee in modification of the Agricultural Research Sub-Committee's recommendations decided (i) that the scheme be axtended upto 31st May 1954 only for the present, (2 that the charges for spraying be limited to one anna as proposed in the unified scheme of the Travancore-Cochin Government (subject No. 32 on the agenda) with effect from 15th October, 1954, and (3) that the period of operation of the Travancore-Cochin Co-operative Spraying Scheme be limited to 31st May 1955 for the present.

Subject No. 31 — Progress report on the trials made to control the root and leaf diseases of the coconut at the Coconut Station Vyttila for the year ending 30-6-1954.

The Agricultural Research Sub-Committee's recommendations that the progress report be approved and the Travancore-Cochin Government be requested to forward a scheme, for the Committee's consideration, for conducting a regular demonstration of improved methods of cultivation, manuring and spraying for the control of the root and leaf diseases of coconut, so that adequate data may be available to the growers of the tract, were accepted by the Committee.

Subject No. 32 — Proceedings of the special sub-committee set up to examine the question of having a unified scheme in Travancore - Cochin State for spraying coconut palms to control the leaf disease.

The Committee adopted the Agricultural Research Sub-Committee's recommendation that the proceedings of the special sub-committee be recorded, and that in view of the reduced charges agreed upon for future spraying, the State Government be requested to bring in a legislation in due course to see that all the trees in the affected area are regularly sprayed so that the unsprayed trees may not be a source of infection to the trees receiving the spraying.

Subject No. 33 — Progress report on the zonal parasite breeding station for the biological control of *Nephantis serinopa* at Kasaragod (Madras State) for the year ending 30-6-'54.

The Agricultural Research Sub-Committee's recommendation that the progress report be approved was endorsed by the Committee.

Subject No. 34 — Progress report on the zonal parasite breeding station for the biological control of *Nephantis serinopa* at Razole, Andhra State, for the year ending 30-6-1954.

The Committee accepted the Agricultural Research Sub-Committee's recommendation that the progress report on the above scheme be approved.

Subject No. 35 — Progress report on the work of the Coconut Propaganda Officer, Travancore-Cochin State for the half year ending the 30—6—1954.

The Agricultural Research Sub-Committee's recommendation that the progress report be approved was adopted by the Committee.

Subject No. 36 — Scheme for the organisation of demonstration plots on coconut growers' lands in representative areas in Mysore State.

The Committee approved of the Agricultural Research Sub-Committee's recommendations that there was no justification for deviating from the Committee's usual procedure in the matter of sharing expenditure on similar schemes and that the Mysore Government be requested to reconsider the matter and agree to meet 50 per cent of the recurring expenditure and the entire non-recurring expenditure on the scheme.

Subject No. 37 — Details relating to coconut scheme for inclusion in the Second Five Year Plan (1956-57 to 1960-61).

A special sub-committee which considered the proposals on 26-9-1954 made the following recommendations:-

1. *Central Coconut Research Station, Kasaragod:*— The pay of the Technological Chemist be revised to Rs. 350-30/2-380-30/2-410-30-5-590-30-770-EB-40-850. Instead of two Research Officers and three Senior Research Assistants, provision of a Senior Research Assistant on Rs.250-10-300-15-450-25/2-500 and a Junior Research Assistant on Rs. 160-10-330 be made as in the case of other research sections. The following items of staff may be deleted:-

One Store-keeper.
One Daffadar.
One Watchman.

2. Central Coconut Research Station, Kayangulam: The Sub-Committee recommended (1) that on the basis of th Central Coconut Research Station, Kasaragod, the scales of pay o the heads of sections be also up-graded to Class I Junior, in involving only an additional expenditure of Rs. 9,000/-, (2) that provision may be made for an Artist-Photographer for the Station on a scale of pay of Rs. 60-150 with an initial salary of Rs. 100/- the expenditure on this account being Rs. 6,720/- (3) that a sum o Rs. 24,000/- be provided for the erection of a tower for higher altitude observations.

3. Under coconut nurseries in Andhra, six additional nurseries may be started besides the three suggested in the draft scheme each with an annual target of 10,000 seedlings. The cost will be of the order of Rs. 2,90,000 inclusive of non-recurring expenditure of Rs. 25,000/-. The Director of Agriculture, Andhra State has suggested that the recurring expenditure should be shared between the Government of India and the State Government in the proportion of 75:25.

4. In statement No. 9 regarding the cost of a coconut nursery at Ganjam in Orissa provision be made for a Mali on Rs. 30-1-40 and the travelling allowance be enhanced from Rs. 250/- to Rs. 500/- in the case of each nursery per year.

5. In West Bengal, instead of two additional nurseries each with an annual target production of 8,000 seedlings, 4 nurseries each with an annual target production of 10,000 seedlings be established. The net cost to the Government of India on account of these 4 nurseries will be Rs. 98,000/- and Rs. 1,22,000/- to the State Government.

6. In Andhra State the number of demonstration plots be enhanced to 25, the total cost of which will be Rs. 1,62,500/- inclusive of a non-recurring expenditure of Rs. 1,00,000. The Director of Agriculture, Andhra has proposed that the recurring expenditure should be shared by the State Government and the Government of India in the proportion of 25:75, the share of the two Governments being Rs. 14,625/- and Rs. 46,375/- respectively.

The expenditure provided for demonstration work in Orissa be enhanced to Rs. 55,000 to be shared equally by the Government of India and the Orissa Government.

On the suggestion of the West Bengal Government's representative it was recommended that provision should be made for three demonstration centres in the State, the cost of Rs. 15,000 being shared equally between the State Government and the Government of India.

For providing proper irrigation facilities in the coastal sandy type of soil in Travancore-Cochin, Madras, Andhra and Orissa States, it would be desirable to put in at least 100 filter point pump sets. The cost of a filter point and lining pipe would be about Rs. 325/- and the cost of an engine and pump Rs. 2,750/-. The cost of the filter point and lining pipe amounting to Rs. 325/- per unit be subsidised by the Government of India, the amount required for the engines and pumps being given as loans, the cost being recovered in easy instalments.

Items Nos. VI and VII be combined under the general head "Plant Protection Work", the present item VI being shown as "Biological Control of Pests" and item VII as "Chemical Control".

In view of the increased number of nurseries etc., it was recommended that the amount provided for celebration of Coconut Day by the Regional Coconut Research Stations, nurseries, etc. be enhanced to Rs. 50,000/-.

The amount provided for coconut oil crushing by improved ghanies be enhanced to Rs. 10,00,000/-.

In the scheme relating to the development of coconut cultivation in the Andaman and Nicobar Islands the scale of pay of the Coconut Development Officer be revised to Rs. 350-30/2-380-30/2-410-30-590-EB-30-770-EB-40-850 with an initial pay of Rs. 410/- the provision made for a motor cycle be deleted and the amount re-allotted towards the purchase of a "Chula" dryer, small rotavator or tractor, construction of shed etc., the total allotment for the last three items of the estimate being Rs. 12,500/-

They also recommended that details regarding the schemes for inclusion in the Second Five Year Plan in Hyderabad be added on to the proposals on receipt from the State Government.

The Agricultural Research Sub-Committee's recommendation that the proposals of the *ad hoc* sub-committee on the subject be accepted with the following modifications, was endorsed by the Committee with the proviso that the suggestion regarding the institution of a prize for a dehusking machine for coconut be deleted:-

(1) That in the matter of sharing of the recurring expenditure and receipts between the State Government and the Government of India or the Committee, a uniform policy of 50:50 be adopted.

(2) In the case of Co-operative Marketing Societies in Madras, each Society be provided with a warehouse costing Rs. 11,000/-.

(3) The number of Co-operative Marketing Societies in Orissa be enhanced to 5 with a Central Marketing Society, the cost involved being of the order of Rs. 1,68,420/- of which the Orissa Government's share would be Rs. 84,210/- and the Central Government's Rs. 84,210/-.

(4) That the provision made for the Malabar Market Committee be enhanced to Rs. 12,00,000 and shown as provision for all the coconut areas in the Madras State.

Subject No 61 — Scheme for the establishment of a new Regional Coconut Research Station at Sakhigopal, Orissa.

The Committee approved the Agricultural Research Sub-Committee's recommendation that the scheme for the establishment of a Regional Coconut Research Station at Sakhigopal in Orissa be approved, subject to the condition that the Committee's share of expenditure beyond the 31st March, 1956, be borne by the Government of India as the scheme would come within the purview of the II Five Year Plan from that date.

Subject No 62 — Scheme for the establishment of a Zonal Parasite Breeding Station for the biological control of *Nephantis serinopa* at Kasaragod, South Kanara District–proposals for the extension of.

The Agricultural Research Sub-Committee's recommendation that the proposals for the extension of the scheme for the establishment of a zonal parasite breeding station at Kasaragod for a period of two years be approved on condition that the Committee's share of expenditure on the extension scheme is limited to 50 per cent of the recurring expenditure, was adopted by the Committee.

Subject No. 63 — Coconut Nurseries in Travancore-Cochin State – abolition of some, revision of targets etc.

The Committee endorsed the Agricultural Research Sub-Committee's recommendations that the proposals be accepted subject to the following comments:—

(1) Detailed proposals for increasing the target of production of seedlings in the Ollukkara nursery be forwarded for the Committee's consideration.

(2) As the production target of the Valiathura nursery which is located quite close to Kazhakkuttam is to be raised by 5,000 seedlings, there appears to exist no need to continue the nursery at Kazhakkuttam with its low production target of 4,800 seedlings.

(3) Proposals with details for starting new nurseries at Kothamangalam and Kunnathunad may be forwarded separately for the Committee's consideration.

(4) An additional Fieldman be provided for each of the nurseries at Valiathura and Thodupuzha as their target of production is to be stepped up to 30,000 seedlings each

(5) When the four nurseries under the scheme for the expansion of coconut nursery work in Travancore are abolished, the staff in those nurseries be treated as disbanded.

(6) In case two servants are required for the nurseries at Ollukkara and Wadakkancherry, separate proposals may be sent up for the Committee's consideration.

Subject No. 64 — Coconut nursery scheme West Bengal—discontinuance of nursery at Tollygunge and its amalgamation with the nursery at Chandernagore.

The Agricultural Research Sub-Committee's recommendation that the action taken by the Director of Agriculture, West Bengal, in shifting the nursery at Tollygunge and amalgamating it with the nursery at Chandernagore be approved, was adopted by the Committee.

Subject No. 75 — Inter-change of officers and periodical conferences of technical officers serving the coconut industry in India and Ceylon.

The Committee accepted the following recommendations of the Agricultural Research Sub-Committee made after considering the letter from the Chairman, Coconut Research Board, Ceylon, addressed to the President, Indian Central Coconut

Committee, regarding the desirability of interchange of officers and periodical conferences of technical officers serving the coconut industry of India and Ceylon as proposed by Mr. E. Muthukumaru, Chairman of the Research Committee and Mr. F. C. Cooke, Director of the Coconut Research Institute, Ceylon (1) that facilities be given for the following junior and senior officers to visit the Committee's Central Coconut Research Stations, Kasaragod, and Kayangulam as required in the letter:—

1. Mr. C. A. Wickremasuriya, Research Assistant (Crop Protection) to go to the Central Coconut Research Station, Kayangulam, to study work on pests and diseases—2 weeks inclusive of travel.

2. Mr. V. Abeywardene, Computor, to go to the Central Coconut Research Station, Kasaragod, to see the Agri-meteorological works and layout of experiments.

3. Dr. D. V. Liyanage, Botanist, to go to the Central Coconut Research Station, Kasaragod, to study work in field of plant breeding—2 weeks inclusive of travel.

4. Mr. R. D. Rodrigo, Senior Field Assistant, to go to the Central Coconut Research Station, Kasaragod, to see methods of field experimentation.

(2) that their full pay, fares and the usual allowances be met by the deputing organisation while the host institute will provide them only with rest house accommodation;

(3) that the time of visit of these officers may be fixed in consultation with the Director, Central Coconut Research Station, Kasaragod, or the Joint Director, Central Coconut Research Station, Kayangulam, as the case my be;

(4) that the President, Indian Central Coconut Committee be authorised to accord necessary permission to the visiting officers through the Ministry of External Affairs, Government of India and

(5) that in the matter of the officers of the Committee's Central Coconut Research Stations visiting the Coconut Research Institute, Ceylon, the Director, Central Coconut Research Station, Kasaragod, be asked to put up proposals in due course.

Subject No. 38 — Action taken on the decisions of the 19th meeting of the Indian Central Coconut Committee regarding subjects coming within the purview of the Marketing & Economics Sub-Committee.

The Marketing and Economics Sub-Committee's recommendation that the action taken on the decisions of the 19th meeting of the Committee regarding the subjects coming within the purview of the Sub-Committee be recorded, was approved by the Committee.

Subject No. 39 — Progress report on the pilot scheme for the correct estimation of the area and yield statistics of coconuts in Mysore State for the year ending 30-6-1954.

The Committee adopted the Marketing and Economics Sub-Committee's recommendation that the progress report on the above scheme be approved subject to the condition that the necessary further information on the scheme be collected and the Statistical Adviser to the Indian Council of Agricultural Research requested to offer his views on the progress report.

Subject No. 40 — Imports of coconuts, copra and coconut oil into India —quantities to be imported in the first half of 1955.

The Marketing and Economics Sub-Committee's recommendation that the office of the Committee be asked to collect all the necessary data on the subject and put them up for the consideration of the Committee at the next meeting, when definite proposals on the subject would be made to the Government of India, was approved by the Committee.

Subject No. 41 — Contribution to the Publicity Fund of the Indian Council of Agricultural Research.

The Committee endorsed the Marketing and Economics Sub-Committee's recommendation that the Indian Council of Agricultural Research be informed that, in view of the Committee's present financial position and the large amount of money being spent on their publicity and propaganda work, it was not possible for the Committee to make any further contribution to the above fund for the present.

Subject No. 65 — Scheme for the organisation of a Co-operative Marketing Society for coconut growers at Nileshwar.

The Marketing and Economics Sub-Committee's recommendation that the above scheme be approved and the Committee meet 50 per cent of the expenditure on the scheme excluding rent for office and go-down of Rs. 600/- was accepted by the Committee.

Subject No. 66 — Travancore-Cochin "Restriction on possession and ownership of land" Bill—effect on coconut cultivation.

The Committee adopted the Marketing and Economics Sub-Committee's recommendation that the following views expressed by the members on the subject be communicated to the Ministry of Food and Agriculture, Government of India:-

Speaking on the above Bill, the President pointed out that the Bill proposed to impose a ceiling of 15 acres of double crop land or 15 acres of coconut garden or 22½ acres of single crop land or 30 acres of uncultivated arable land for a five-member family. In case the number of members in a family exceeds five, the maximum limit will be increased at one acre of double crop land or 1½ acres of single crop land or one acre of coconut garden or two acres of uncultivated arable land for each member in excess of five subject to a maximum of 25 acres of double crop land or coconut garden or 37½ acres of single crop land or 50 acres of uncultivated arable land. A period of six months has been proposed to be given to persons possessing more land to dispose of their excess lands.

Mr. Damle pointed out that there was considerable need for stepping up the cultivation of coconuts in the country in view of our short supply of coconuts. The Committee had been taking steps to step up the production of coconut and he had no doubt in his mind that a legislation of this nature was bound to cut across its efforts in this direction. Besides, one of the ways of increasing the production was to cultivate coconut on plantation basis. He observed that the bill contemplated to keep the lands under tea, coffee, rubber and cardamom outside its purview. There were more reasons than one for considering coconut as a plantation crop and in order that the efforts of the Committee might bear fruit, it was necessary that the coconut plantations should be exempted from the operation of law and allowed to benefit from large scale cultivation as in the case of rubber, tea, etc.

Mr. P. T. John said that while it was not possible to foresee the full consequence of this revolutionary piece of legislation, he was certain that it was bound to retard the production of coconut to a considerable extent and consequently the efforts made by the Indian Central Coconut Committee to increase production would be defeated if the Bill was to be passed in its present form. Instances were not wanting where owners were cutting down coconut trees in order that they might qualify to hold land in excess of the limit of 15 acres as provided for in the Bill as in the instance of uncultivated arable land where the ceiling was fixed at 30 acres.

As against 15 to 20 thousand rupees incurred by him for bringing an acre of coconut to full bearing the owner of a plantation could, according to the Bill, expect to receive by way of compensation on land in excess of the ceiling, only 3/8 of the total income he had been enjoying all along. When thus faced with the sad prospect of losing all that he had laboriously built up through years of painful efforts the owner would hesitate to incur any further expenditure on developing the land that he would be deprived of through the enforcement of the Bill. Small holdings were so many that in fact the problem to be solved in this area was fragmentation more than concentration. If tea, rubber, cardamom etc., could be precluded from the operation of the Bill, there was no reason why coconut which was as much a permanent crop and required more capital expenditure could not also be precluded from the purview of the Bill.

Mr. Farbstein stated that the present production of coconut was not sufficient to meet the country's demand and that it had resulted in fairly large quantities of imports of coconuts, and coconut products. One of the important problems that the Committee was called upon to tackle was that of stepping up the production of coconut. One of the efficient ways of cultivating coconut was to undertake it on a plantation basis. Cultivating coconut on a plantation basis had considerable advantages. One of the advantages Ceylon had over us in the matter of coconut was their cultivation of coconut on a plantation scale. He was convinced that the proposed bill would help to cut at the root of this and he suggested that a recommendation should be made that coconut should be kept outside the purview of the operation of the Bill.

Sri Amrithanatha Iyer pointed out that the most important problem the Committee had to solve was the stepping up of the production of coconuts for achieving self-sufficiency in the country.

Those who owned larger areas of coconut gardens had been evincing greater interest in the cultivation and had been adopting the improved and scientific methods advocated by the Committee. But the proposed bill had caused so much disappointment amongst them that it was bound to work against the Committee's efforts to enhance the area under and production of coconuts under the Second Five Year Plan unless immediate steps were taken to see that coconut gardens were excluded from the purview of the Bill.

Considering the fact that such an enactment would strike at the root of the long standing tradition and custom in the country it should be made applicable to future holdings only. A census of land holdings should be taken and the ceiling determined in terms of the income from land and not on acreage so that it might not work much hardship to the owners of the existing lands. As land was the main security for loans, credit facilities would dwindle and the price of lands would fall if the Bill were to be passed.

Continuing, Sri Iyer referred to a similar Bill introduced in Delhi which had reference to future holdings only and in which the ceiling prescribed was 30 standard acres fixed on the basis of income. Kuttanad, he said, deserved special consideration in the matter of exemption from the proposed ceiling in view of the fact that the gardens there were raised from water-logged lands at huge cost.

Mr. Peter said that the production of coconut was in short supply in India. This was why they had been importing coconut from Ceylon and other countries. One of the ways of stepping up the coconut production was to carry on coconut cultivation on plantation basis. He recalled that Sir C. P. Ramaswamy Iyer, the then Dewan of Travancore, while inaugurating the first meeting of the Committee had stated that one of the important problems confronting the Committee was the question of the consolidation of coconut holdings. The Committee had set up an *ad hoc* sub-committee for the purpose and had made certain recommendations with regard to consolidation of coconut holdings. Having regard to the fact that there was great need for increasing the production he said that the recommendations of the above-mentioned Sub-Committee deserved to be implemented without further delay. He thought that the recommendations of the proposed Bill would work counter to the efforts of the Committee for stepping up the production of coconuts in the country. He, therefore, proposed that the

Committee should make a recommendation to the Travancore-Cochin Government that coconut should be excluded from the operation of the Bill.

Mr. Kallapur stated that while cultivation of coconut on plantation basis might have certain advantages, he could not agree with the contention that small holdings were uneconomical. Cultivation of small holdings had also certain advantages and one of them was that it afforded employment to a larger percentage of the population. We had also to reckon with the fact that the population in Travancore-Cochin State had been increasing steadily and that the State was over-populated. There was not enough land in the State to go round. It was, therefore, necessary to place certain restrictions with regard to the extent of land that an individual might possess. He was, therefore, of the view that the legislation was a sound one.

The Vice-President, who spoke next, stated that having regard to the facts that the population in Travancore-Cochin State was increasing fast and there was not enough land to go round, it was necessary for the State to impose a ceiling on the ownership and possession of land. As far as he was aware the percentage of the coconut growers who cultivated coconut on plantation basis was not more than 5. The number of growers likely to be affected by the legislation, therefore, cannot but be negligible. He was convinced that a legislation of this nature was absolutely necessary. He said that there may be defects in the Bill as drafted. They might be pointed out to the State Government who might be asked to take steps to get them rectified. He desired that it should be recorded that he was in favour of the principles embodied in the Bill.

Sri Thariyathu Kunjithomman said that if coconut lands were to be excluded from the purview of the proposed Bill it was only proper that arecanut and pepper gardens were also excluded. No harm would, however, be done if the Government were to purchase lands and distribute them amongst the poor cultivators. He, therefore, agreed with what the Vice-President of this Committee had stated earlier.

If, however, coconut gardens were to be brought under the purview of the Bill their inclusion might be subject to the following conditions:-

1) The ceiling on holdings, whether coconut or other lands, should be increased.

2) The lands over and above the ceiling so fixed should be purchased from their owners by the Government, the necessary funds for this being raised either from the World Bank or from the Five-Year Plan on payment of a nominal interest and distributed amongst poor cultivators from whom interest may be collected as lease amount.

The President at this stage stated that the above views might be forwarded to the Ministry of Food & Agriculture for necessary action.

Subject No. 42 — Action taken on the decisions of the 19th meeting of the Indian Central Coconut Committee regarding subjects coming within the purview of the Finance Sub-Committee.

The Finance Sub-Committee's recommendation that the action taken on the decisions of the 19th meeting of the Indian Central Coconut Committee be recorded, was approved by the Committee.

Subject No. 43 — Revised Budget Estimates of the Committee for the year 1954-55.

The Committee endorsed the Finance Sub-Committee's recommendations that the Revised Budget Estimates of the Committee for the year 1954-55 be approved and the Sacretary of the Committee authorised (1) to make the necessary revision in the above estimates in the light of the decisions taken at this meeting and the Revised Budget Estimates of the grant-in-aid schemes that may be received from the State Governments before submission of the Committee's Revised Budget Estimates to the Government of India provided that the estimates are not in excess of those originally sanctioned by the Committee, and (2) to include provisions for the schemes sanctioned by the Committee for which the Government of India's approval is still awaited provided that the approval is received before submission of the Revised Budget Estimates to the Government of India.

Subject No. 44 — Budget Estimates of the Committee for the year 1955-56.

The Committee adopted the Finance Sub-Committee's recommendations that the Budget Estimates of the Committee for the year 1955-56 be approved and that the Secretary of the

Committee be authorised to revise them in the light of the decisions taken by the Committee at this meeting before submission to the Government of India.

The Finance Sub-Committee's recommendation that as it would not be advisable to postpone any further the construction of the Laboratory-cum-office building etc., at the Central Coconut Research Station, Kasaragod, the Government of India be requested to make available a grant of Rs. 5 lakhs to the Committee for the capital expenditure of the Research Stations was also accepted by the Committee.

Subject No. 45 — Reduction of the rate of levy of coconut cess.

The Finance Sub-Committee's recommendation that consideration of the subject be dropped for the present, was approved by the Committee.

Subject No. 46 — Proposals to levy cess on edible copra.

The Committee endorsed the Finance Sub-Committee's recommendation that an *ad hoc* sub-committee consisting of the Vice-President and Messrs. P. B. Kurup, C. H. Lingadevaru, P. T. John and C. Jagannatha Rao (Oilseeds Specialist, Andhra) be constituted to go into the question in detail and submit its report for the Committee's consideration at the 21st meeting.

Subject No. 47 — Indian Central Coconut Committee Provident Fund—Fixation of rate of interest for the year 1954-55.

The Finance Sub-Committee's recommendation that the rate at which interest is to be credited to the accounts of the subscribers to the Committee's Contributory Provident Fund for the year 1954-55 be fixed at 3¼% per annum and the Committee agree to make a special contribution not exceeding Rs. 900/- to enable payment of the above rate of interest, were adopted by the Committee.

Subject No. 48 — Temporary post of Peon in the Committee's office—Continuance of—

The Finance Sub-Committee's recommendation that the post of the Peon be continued for a further period upto 31st March, 1956 subject to the condition that expenditure on this account for the current year is met from the provision made in the sanctioned budget of the Committee, for the year 1954-55 wa accepted by the Committee.

Subject No. 49 — Central Coconut Research Station, Kasaragod — supply of coconut seedlings to Harijan Colony— President's sanction—ratification of—

The Committee endorsed the Finance Sub-Committee's recommendation that the sanction accorded by the President for the free supply of 750 quality coconut seedlings to the Harijan Sevak Sangh, Kozhikode, from the Central Coconut Research Station, Kasaragod, be ratified.

Subject No. 50 — Central Coconut Research Station, Kasaragod—Payment of interest on enhanced compensation in respect of land acquired.

The Finance Sub-Committee's recommendation that the interest on the additional compensation amount be borne by the Committee was approved by the Committee.

Subject No. 51 — Central Coconut Research Station, Kayangulam— Proposal for extension of the posts of four Laboratory Attenders and one Electrical Lineman.

The Committee adopted the Finance Sub-Committee's recommendation that the posts of Electrical Lineman and Laboratory Attenders be continued upto 31-3-1956.

Subject No. 52 — Central Coconut Research Station, Kayangulam— re-employment of Sri K. K. Unnithan, Clerk.

The Finance Sub-Committee's recommendation that the sanction accorded by the President, Indian Central Coconut Committee for extending the services of Sri K. K. Unnithan, Clerk, Central Coconut Research Station, Kayangulam, for another year from 3-9-1954, be ratified was endorsed by the Committee.

Subject No. 53 — Scheme for the establishment of a Regional Coconut Research Station at Ratnagiri in Bombay State— revised estimates for 1954-55 and 1955-56.

The Committee accepted the Finance Sub-Committee's recommendation that the revised estimates for the year 1954-55 and 1955-56 be approved subject to the condition that the Committee's share of expenditure on the scheme for the 5-year period of its operation does not exceed Rs. 54,287/- sanctioned by the Government of India.

Subject No. 54 — Scheme for the expansion of coconut nursery work in Travancore—upgrading the scale of pay of Graduate Assistant.

The Finance Sub-Committee's recommendation that the scale of pay of the Graduate Assistant in the scheme be revised to Rs. 125-175 was adopted by the Committee.

Subject No. 55 — Comprehensive coconut nursery scheme, Madras State—revised estimates for 1954-55 and 1955-56.

The Committee endorsed the Finance Sub-Committee's recommendation that the revised estimates for the years 1954-55 & 1955-56 be approved subject to the condition that the Committee is not required to share the expenditure on the Pattambi Nursery from 1-4-1954 and that the Committee's share of expenditure does not exceed the sanctioned amount on the scheme.

Subject No. 56 — Coconut nursery scheme, Marudur in Tiruchirapally District, Madras State—revised estimates for 1954-55.

The Finance Sub-Committee's recommendation that the revised estimates be approved and sanction accorded for the grant of higher initial pay to the Assistant posted to the scheme on condition that the Committee's share of net expenditure does not exceed the sanctioned amount of Rs. 13,545/- was accepted by the Committee.

Subject No. 57 — Coconut Nursery scheme at Kumta (Bombay State)—final estimates for 1954-55 and revised estimates for 1955-56.

The Committee endorsed the Finance Sub-Committee's recommendation that the final estimates for 1954-55 and the revised estimates for 1955-56 be approved subject to the condition that the total net expenditure to the Committee for the 5-year period does not exceed the sanctioned amount of Rs 11,746/-.

Subject No. 58 — Zonal parasite breeding station for the biological control of *Nephantis serinopa* at Kasaragod—Final estimates for 1954-55.

The Finance Sub-Committee's recommendation that the final estimates be approved on condition that the Committee's share of expenditure for the period upto 3-12-1954, does not exceed the sanctioned amount of Rs. 4,957/, was adopted by the Committee.

Subject No. 59 — Zonal parasite breeding station scheme for the biological control of *Nephantis serinopa* at Razole (Andhra State)-revised estimates for 1954-55 and budget estimates for 1955–56.

The Committee endorsed the Finance Sub-Committee's recommendation that the revised estimates for 1954-55 and budget estimates for 1955-56 be approved, subject to the condition that the Committee's shares of expenditure on the original and extension schemes do not exceed Rs. 6,552/- and Rs. 6,653/- respectively, sanctioned by the Government of India.

Subject No. 60 — Conversion of the post of Statistical Assistant in the Committee's office into Office Assistant.

The Finance Sub-Committee's recommendation that in the circumstances explained in the Secretary's note the post of Statistical Assistant in the Committee's office be converted to that of Office Assistant on the present scale of Rs. 80-5-120-EB-8-200-10/2-220 was approved by the Committee.

Subject No. 67 — Central Coconut Research Station, Kasaragod—Authorisation of the President & Secretary of the Committee for the execution of an agreement in regard to the provision of a foot-path across the railway line.

The Committee accepted the Finance Sub-Committee's recommendation that the following resolution be passed:-

"Resolved under sub-rules 2 and 3 of Rule 15 of the Indian Central Coconut Committee Rules 1945 to authorise the President and Secretary of the Committee to execute on behalf of the Committee an agreement with the Southern Railway Administration for the erection of a foot-path across the railway track to the west of the main block of the Central Coconut Research Station, Kasaragod, to have access to the Beach Block lying to the west of the railway line".

Subject No. 68 — Central Coconut Research Station, Kasaragod—supply of electric power to—additional expenditure incurred.

The Finance Sub-Committee's recommendation that the information furnished in the Secretary's note be recorded was adopted by the Committee.

Subject No. 69 — Central Coconut Research Station, Kasaragod—request for additional staff.

The Committee endorsed the Finance Sub-Committee's recommendation that the post of a Head Assistant in the scale of pay of Rs. 160-10-330 only be sanctioned upto 31st March, 1959.

Subject No. 70 — Central Coconut Research Station, Kayangulam—appointment of an additional Clerk in the office of—

The Finance Sub-Committee's recommendation that an additional post of a Clerk in the scale of Rs. 55-3-85-EB-4-125-5-130 be sanctioned for a period of 5 years from 1-4-1955, was approved by the Committee.

Subject No. 71 — Scheme for the establishment of a Regional Coconut Research Station in Assam—revised statement of expenditure.

The Committee accepted the Finance Sub-Committee's recommendation that the revised statement of expenditure be approved subject to the condition that the net expenditure to the Committee for the 5-year period does not exceed Rs. 45,474-8-0.

Subject No. 72 — Coconut nursery scheme in Andhra State—revised estimates for 1954-55 and 1955-56.

The Finance Sub-Committee's recommendation that the revised estimates of the scheme for the years 1954-55 and 1955-56 be approved was endorsed by the Committee.

Subject No. 73 — Coconut nursery scheme in Nandgaon (Bombay)—Final estimates for 1954-55.

The Committee adopted the Finance Sub-Committee's recommendation that the second revised estimates of the scheme for the year 1954-55 be approved.

Subject No. 74 — Scheme for the development of coconut cultivation in West Bengal—revised statement of expenditure.

The Committee endorsed the Finance Sub-Committee's recommendation that the revised estimates be approved subject to the conditions (1) that the provision of Rs. 120/- made for the compensatory allowance of the Coconut Development Officer for the period of his training is met entirely by the State Government, and (c) that the Committee's share of the recurring expenditure fo the 5-year period does not exceed Rs. 33,988/-

Subject No. 76 — Recommendations of other sub-committees havin financial implications.

The Finance Sub-Committee's recommendation that the financial commitments noted below arising out of the recommendations of the Agricultural Research Sub-Committee and Marketing and Economics Sub-Committee be approved was endorsed:

AGRICULTURAL RESEARCH SUB-COMMITTEE SUBJECTS

DETAILS OF EXPENDITURE

Item No. of I. C. Coc. C. agenda		Amount Rs.
Sub. No. 9	Central Coconut Research Station, Kayangulam—post of Assistant Virus Pathologist—extension of term.	11,160
Sub. No. 18	Scheme for the establishment of a coconut nursery at Wadakkancherry, Travancore-Cochin State.	9,335
Sub. No. 30	Proposals for the extension (V) of the scheme for spraying of coconut trees to control the leaf disease for one year from 1-12-1954 to 30-11-1955.	9,213
Sub. No. 61	Scheme for the establishment of a new Regional Coconut Research Station at Sakhigopal, Orissa.	27,976
Sub. No. 62	Scheme for the establishment of a zonal parasite breeding station for the biological control of *Nephantis serinopa* at Kasaragod, South Kanara District.	5,616

DETAILS OF RECEIPTS

Sub. No. 18	Scheme for the establishment of a coconut nursery at Wadakkancherry, Travancore-Cochin State.	2,560

		Rs.
Sub. No. 30	Proposals for the extension (V) of the scheme for spraying of coconut trees to control the leaf disease for one year from 1-12-1954 to 30-11-1955.	4,123

MARKETING & ECONOMICS SUB-COMMITTEE SUBJECTS

Sub. No. 65	Scheme for the organisation of a co-operative marketing society for coconut growers at Nileshwar.	2,514

Mr. Jagannath Misra invited the attention of the members to the fact that in Orissa coconut cultivators did not prepare copra or coconut oil on a commercial scale and that coconuts were being exported to other States as "watery coconuts". The Co-operative Coconut Marketing Society at Sakhigopal and those growers interested in exporting coconuts were experiencing considerable difficulty in obtaining railway wagons and that as a result of it the Co-operative Society suffered loss. At present coconuts were classified by the railways under group E for purpose of supply of wagons. It was necessary to treat coconuts as perishables and upgrade them into category C with regard to the supply of wagons. The President pointed out that the railway authorities would not be prepared to treat coconut as a perishable article. He agreed, however, to take up the matter with the Railway Board and get the priority in respect of wagon supply for coconut upgraded to category D.

The Vice-President next pointed out that the present practice of holding the half-yearly meetings of the Committee in April and September/October was causing considerable inconvenience to those members of the Committee who are also members of Parliament and the State Assemblies. He therefore suggested that the dates of the meetings should be altered. After some discussion it was decided that in future the meetings should as far as possible be held in January and July and that the next meeting in January 1955. As regards the venue of the next meeting, on the suggestion of Shri P. B. Kurup, it was agreed that Mangalore might be chosen for the purpose in case accommodation and other facilities were available there; otherwise Cannanore.

The Committee decided to elect the Agricultural Marketing Adviser to the Government of India as a member of the Marketing and Economics Sub-Committee.

With a vote of thanks to the President the meeting came to a close.

K. GOPALAN, Secretary

APPENDIX I

SECRETARY'S NOTE

Subject No. 5 — Proceedings of the meeting of the Finance Sub-Committee held on 15-7-1954.

Attached to this note are the agenda proceedings of a meeting of the Finance Sub-Committee held on the 15th July, 1954 at the Central Coconut Research Station, Kasaragod, together with notes on the subjects included in the agenda for the meeting.

As decided by the Sub-Committee the Government of India have already been addressed for a loan of Rs. 2½ lakhs to meet the expenditure connected with the construction of laboratory building at the Central Coconut Research Station, Kasaragod or in the alternative to make available a similar sum to the Committee from funds under the First Five-Year Plan. The Government of India have also been requested to exempt the Committee from payment to the Central Public Works Department of the entire cost of construction in a lump sum in advance and to permit part only of the payment to be made before construction, the balance being paid against part bills as the construction progressed.

Sanction of the Government of India for the supplementary grant of Rs. 8,165/- to pay to the Malabar District Co-operative Produce Sale Society being the balance of the cost of construction of the copra kiln put up at Badagara has been applied for and is awaited. Their sanction for the revised statement of cost of the comprehensive coconut nursery scheme, Orissa also has been applied for and is awaited.

The decision of the Sub-Committee on the grant-in-aid statement and audit certificate relating to the coconut nursery scheme, Ratnagiri for the year 1952-53 and the proposal for grant of water allowance to the staff of that nursery are for the information of the Committee.

AGENDA

1. Construction work at the Central Coconut Research Station, Kasaragod—expenditure for.
2. Construction of copra kiln at Badagara—subsidy for—payment of.
3. Comprehensive scheme for the establishment of coconut nurseries in Orissa State—revised statement of cost—approval of.
4. Coconut nursery scheme, Ratnagiri in Bombay State—Grant in-aid statement and audit certificate for the year 1952-53.
5. Coconut nursery scheme at Ratnagiri in Bombay State—proposal for grant of water allowance to staff.

Proceedings of the meeting of the Finance Sub-Committee held at Kasaragod on 15th July 1954

The following members were present:—

1. Shri K. P. Madhavan Nair—*Chairman*
2. Shri K. G. S. Bhandari
3. Shri P. B. Kurup
4. Shri A. R. Sulaiman Sait
5. Shri Kamal Krishna Das
6. Shri V. J. Joseph
7. Shri K. Gopalan—*Secretary*

Shri C. M. John, Director, Central Coconut Research Station, Kasaragod, also attended the meeting.

Subject No. I — **Construction work at the Central Coconut Research Station, Kasaragod—expenditure for**

Having regard to the present financial position of the Committee, arising out of the non-receipt of part of the remittances relating to the coconut cess, and the fact that only a sum of Rs 93,626-3-6 is available under the head "Buildings, residential and non-residential, water supply, electrification, etc." in the sanctioned budget against Rs. 2,69,587 required for the construction of the Laboratory and office building, coconut store and cattle shed, the Sub-Committee decided (1) that the Government of India be requested to grant the Committee immediately a loan of Rs. 2½ lakhs re-payable in five equal annual instalments to enable the Committee to place necessary funds for their construction at the disposal of the Central Public Works Department as required under their present procedure and (2) that in case the Government of India could not agree to the above request they be requested to make available the above amount to the Committee immediately from the sum of Rs. 10 lakhs tentatively agreed to be provided by them under the Coconut Development Scheme included in the 2nd Five-Year Plan, part of which they have agreed to provide during the first Five-Year plan if necessary for the preliminary work connected with the development of the two Central Coconut Research Stations of the Committee.

They also recommended that the Government of India be requested to exempt the Committee from the usual procedure of remitting to the Central Public works Department the full amount of the cost of construction Works in advance, the Committee making only part payments immediately before the commencement of the construction, the balance being paid as the construction of the above works progresses.

Subject No. 2 — **Construction of a copra kiln at Badagara—subsidy for—payment of—**

The Sub-Committee recommended that a supplementary grant of Rs. 8,165 be sanctioned to enable the balance amout due to the Society on account of the enhanced expenditure incurred on the kiln to be paid to them. They also recommended that as some difficulties had been experienced in the actual working of the kiln, the Director, Ceylon Coconut Research Scheme be requested to depute an Officer of theirs experienced in the construction of the above type of kiln to examine the kiln and offer advice with regard to the practical working of the kiln, his travelling allowance etc., being met by the Committee.

Subject No. 3 — **Comprehensive scheme for the establishment of coconut nurseries in Orissa State—revised statement of cost—approval of.**

The Sub-Committee approved of the revised statement of cost of the above scheme.

Subject No. 4 — Coconut Nursery Scheme, Ratnagiri, in Bombay State—Grant-in-aid statement and audit certificate for the year 1952-53.

The Sub-Committee recommended that the grant-in-aid statement and audit certificate relating to the above scheme for the year 1952-53 be accepted.

Subject No. 5 — Coconut Nursery Scheme at Ratnagiri in Bombay State—proposal for grant of water allowance to staff.

The Sub-Committee recommended that 50% of the expenditure involved in the grant of water allowance to the staff in the above scheme for the period 1-1-1953 to 15-6-1953 be met by the Committee on condition that it was met from within the allotment sanctioned for the current year.

SECRETARY'S NOTES

Subject No. 1 — Construction work at the Central Coconut Research Station, Kasaragod—expenditure for—

The special Sub-Committee constituted by the Indian Central Coconut Committee for approving of the plans and estimates for construction works at the Central Coconut Research Station, Kasaragod, met at that Research Station on the 23rd June, 1954, and approved of the plans and estimates for the following items of work subject to certain modifications of the plans (Vide Proceedings of the Sub-Committee—copy attached).

WORK	Estimated cost excluding Departmental Charges.
1. Quarters for the Director 2. Quarters for the Agronomist	Rs. 50,460
3. Quarters for the Farm Assistant	Rs. 12,800
4. Quarters for the Watchmen (4 Nos.)	Rs. 15,500
5. Coconut Store	Rs. 6,751
6. Cattle Shed	Rs. 5,432

The Sub-Committee also decided that work connected with the Laboratory and Office Building (the estimate for which was approved by the Committee at its last meeting), the coconut store and cattle shed should be taken up immediately, necessary funds for the purpose being placed at the disposal of the Central Public Works Department, and that work on quarters for the Director, Agronomist, Farm Assistant and Watchmen also started as early as possible.

A sum of Rs. 2,69,587/- as per details shown below, will have to be remitted to the Central Public Works Department, before the construction of the Laboratory and Office Building, the coconut store and cattle shed is started.

WORK	Estimated cost including Departmental Charges at 12½%
Laboratory and Office Building ...	Rs. 2,55,881
Coconut Store	Rs. 7,595
Cattle Shed	Rs. 6,111
Total	Rs. 2,69,587

There is, however, only Rs. 93,626-3-6 remaining under the head "Buildings, residential and non-residential, water supply, electrification etc." in the sanctioned budget of the Central Coconut Research Station, Kasaragod for the year 1954-55. This amount will hardly be sufficient for the above-mentioned purpose. Nor will it be possible to find such a big sum by diversion or re-appropriation from under other heads of expenditure, since the provisions made under those heads are only the minimum required for the year. Moreover our bank balance at present is only about Rs. 2 lakhs out of which Rs. 95,283 will be required in September 1954 for repayment of the 3rd instalment of the loan of Rs. 3 lakhs taken from the Government of India, in 1951. The balance together with the cess collection receipts anticipated during the remaining part of the year will only be sufficient for meeting the expenditure provided in the Budget.

The only alternatives for finding the required funds seem to be the following:-

The Government of India have tentatively agreed to provide a sum of Rs. 10 lakhs under the Coconut Scheme proposed to be included in the Second 5-Year Plan, for the development of the Central Coconut Research Stations, Kasaragod and Kayangulam. They have also stated that, in case any preliminary work is necessary during the first Five-Year Plan, in respect of schemes to be included in the Second Five-Year Plan, these should be taken up in the First Five-Year Plan itself subject to the availability of funds. The development of the two Central Coconut Research Stations under the Second Five-Year Plan contemplates the provision of additional research facilities at the two Stations, and an expanded programme of research work to commence with the 1st April 1956. The laboratory at the Central

Coconut Research Station, Kasaragod, is thus an essential preliminary to the expansion programme visualised under the 2nd 5-Year Plan. The Government of India may, therefore, be requested to make available to the Committee immediately a sum of Rs. 2½ lakhs for meeting the expenditure in connection with the construction of the Laboratory and Office Building etc. at the Central Coconut Research Station, Kasaragod, from funds available under the 1st 5-Year Plan.

In the alternative and if there is likely to be delay in making available to the Committee funds under the 1st 5-Year Plan, the Government of India may be requested to grant the Committee a loan of Rs. 2½ lakhs repayable in five instalments from the year 1956-57. The final instalment of the present loan will be paid only in September 1955. The loan can be repaid earlier if the Government of India make available the required amount from the 1st 5-Year Plan funds earlier than 1956-57.

The Finance Sub-Committee may consider the alternatives and take their decision.

Subject No. 2 — Construction of copra kiln at Badagara—subsidy for payment of.

The Indian Central Coconut Committee had. at its last meeting (April 1954), considered a revised estimate for the construction of a Ceylon estate type kiln at the Badagara branch of the Malabar District Co-operative Produce Sale Society Ltd., Kozhikode, and sanctioned for the work an enhanced expenditure of Rs. 15,065/- as against the sum of Rs. 12,900/- originally sanctioned.

A provision of Rs. 6,900/- only had been made in the sanctioned budget of the Committee for the current year to make payment towards the construction of the kiln as a sum of Rs. 6000/- had been provided in the previous year's budget. This provision, however, lapsed as the Society did not complete construction of the kiln by 31st January, 1954 the date stipulated by the Committee and payment could not be made without the Committee's specific sanction. The Society has therefore been paid the sum of Rs. 6900/- and told that the balance would be paid after obtaining the sanction of the Committee and the Government of India for a supplementary grant for the purpose.

The Finance Sub-Committee may now sanction a supplementary grant of Rs. 8,165/- so that the balance amount due to the Society on account of the enhanced expenditure incurred on the kiln may be paid to them.

Subject No. 3 — **Comprehensive scheme for the establishment of coconut nurseries in Orissa State—revised statement of cost—approval of.**

The Indian Central Coconut Committee had, at its 16th meeting (October 1952) considered certain proposals received from the Director of Agriculture and Food Production, Orissa, for establishing a 5-year comprehensive coconut nursery scheme in that State commencing from 1952-53 by amalgamating the two nursery schemes already functioning in the State. The Committee accepted the proposals subject to the condition that the expenditure and receipts of the scheme as prepared by the Committee's office (*Vide* Annexure I) should be shared by the Orissa Government and the Committee in the proportions of 2:1 and 3:2 respectively. According to this decision of the Committee the comprehensive scheme should have started on 1-12-1952.

The Orissa Government to whom the Committee's decision was communicated have forwarded a revised statement of receipts and expenditure (*Vide* Annexure II) for a 5-year period from 1-4-1952 for the Committee's approval. They have stated that the original schemes as such were abandoned by them on the 31st March, 1952, and that the comprehensive scheme into which the two earlier schemes were merged commenced operation on the 1st April 1952. According to the Committee's decision, however, the comprehensive scheme would have started functioning only on the 1st December 1952.

From the financial point of view, the starting of the comprehensive scheme earlier than 1-12-1952, will only effect for the Committee some saving in expenditure as they have to meet only 33⅓ per cent of the recurring expenditure on the scheme from 1-4-1952 to 30-11-1252 as against 50 per cent.

In the statement of cost approved by the Committee, (Annexure I) a sum of Rs 300/- per annum had been provided as receipts on account of the sale of the ungerminated seednuts. The State Government have reported that this provision has been deleted as ungerminated seednuts are not saleable in Orissa.

It is, therefore, recommended that the revised statement of cost of the scheme may be approved.

ANNEXURE I

STATEMENT OF COST FOR THE EXTENSION SCHEME

Item of expenditure	1952-53 1-12-1952 to 31-3-1953	1953-54	1954-55	1955-56	1956-57	1957-58 1-4-'57 to 30-11-'57	1958-59	Total
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Pay of establishment	975	3,930	4,073	4,258	4,444	3,438		21,118
ALLOWANCES:								
Travelling allowance & Dearness allowance	614	2,456	2,456	2,456	2,456	1,842		12,280
Contingencies	3,500	12,855	12,855	12,855	12,855	9,355		64,275
Total recurring expenditure	5,089	19,241	19,384	19,569	19,755	14,635		97,673
Committee's share 50%	2,545	9,620	9,692	9,785	9,878	7,316.		48,836
RECEIPTS:								
From sale of seedlings			7,500	7,500	7,500	7,500	7,500	37,500
From sale of ungerminated seednuts		300	300	300	300	300		1,500
Total receipts		300	7,800	7,800	7,800	7,800	7,500	39,000
Committee's share 40%		120	3,120	3,120	3,120	3,120	3,000	15,600
NET EXPENDITURE TO THE COMMITTEE	2,545	9,500	6,572	6,665	6,758	4,196	3,000	33,236

ANNEXURE II.

Statement of cost for the comprehensive scheme for the establishment of coconut nurseries in Orissa for a period of 5 years commencing from the 1st April 1952.

ITEMS	1952-53 (Actuals)	1953-54 (As per final estimate)	1954-55	1955-56	1956-57	1957-58	Total
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
AY OF ESTABLISHMENT.							
One Coconut Supervisor on Rs 155-5-160-10-220-EB-10/2-250	1,744	1,910	2,020	2,140	2,260		10,074
hree Fieldmen Demonstrators on Rs. 30-1-39	1,237	1,226	1,278	1.314	1,350		6,405
2 Malies on Rs. 30-1-39	660	742	766	790	814		3,772
One Peon on Rs. 18-½-24.	251	251	251	263	263		1,279
Total pay of Establishment	3,892	4,129	4,315	4,507	4,687		21,530
ALLOWANCES.							
Travelling Allowance	698	800	800	800	800		3,898
Dearness Allowance	1,695	1,696	1,716	1,716	1,716		8,539
Total allowances	2,393	2,496	2,516	2,516	2,516		12,437
CONTINGENCIES.							
Preparation of seed bed	900	900	900	900	900		4,500
Cost of seednuts	5,000	5,000	5,000	5,000	5,000		25,000
Incidental charges	550	555	555	555	555		2,770
Nursery expenses	5,934	6,000	6,000	6,000	6,000		29,934
Miscellaneous contingencies	376	400	400	400	400		1,976
Total contingencies	12,760	12,855	12,855	12,855	12,855		64,180
GRAND TOTAL	19,045	19,480	19,686	19,878	20,058		98,147
Share of the Committee (33⅓% of the expenditure)	6,348	6,494	6,562	6,626	6,686		32,716
Share of the State Government (66⅔% of the expenditure)	12,697	12,986	13,124	13,252	13,372		65,431
Receipts anticipated under the scheme		7,500	7,500	7,500	7,500	7,500	37,500
Share of the I. C. Coconut Committee (40% of the receipts)		3,000	3,000	3,000	3,000	3,000	15,000
Share of the State Government (60% of the receipts)		4,500	4,500	4,500	4,500	4,500	22,500

Subject No. 4 — Coconut nursery scheme, Ratnagiri, in Bombay State—Grant-in-aid statement and audit certificate for the year 1952-53.

Copies of the grant-in-aid statement and audit certificate relating to the above-mentioned scheme for the year 1952-53, furnished by the Government of Bombay and the Accountant-General, Bombay respectively are attached.

The following comments are offered on them:—

1) The Committee's share of expenditure under all the sub-heads are within the allotments sanctioned by the Committee.

2) The figures of expenditure and receipts shown in the grant-in-aid statement tally with those in the audit certificate.

The statement and the audit certificate are in order and may be accepted.

Annual Return (under rule 24 of the Indian Central Coconut Committee Rules 1945) for the year ending 31-3-1953 (year 1952-53).

1. Name of the Scheme:-	Scheme for Establishment of Coconut Nursery at Ratnagiri.
2. Period for which the Scheme has been sanctioned.	Five years
3. Date of commencement of the scheme.	23-10-1950
4. Date of termination of the scheme.	22-10-1955

Percentage share of the Committee in receipts are 40% and in expenditure 50%.

Percentage share of the Bombay Government in receipts 60% and in expenditure 50%.

Recurring expenditure sanctioned:-		*Non-recurring expenditure*
1. For the period of sanction.		
i) 50% share of the I. C. Coc. C.	45639	I. C. Coc. C.—Nil
ii) 50% share of the Bombay Govt.	44639	Bombay Govt. Rs.12750
2. For the year under report:		
i) 50% share of the I. C. Coc. C.	10662	
ii) 50% share of the Bombay Govt.	10661	

Receipts	
(I) *Receipts from the Indian Central Coconut Committee.*	
1. Opening balance brought forward from the last financial year.	Rs. 3041—8—0
2. Remittances from the Committee during 1952-53.	Nil
3. 40% Committee's share of receipts out of the total receipts of Rs. 305 as per details attached.	122—0—0
4. Expenditure in excess of receipts	1273—0—0
Total	Rs. 4436—8—0

Expenditure			
Recurring expenditure incurred from the I. C. Coc. C.			
1. Opening balance			Nil
2. Expenditure during the year 1952-53	Total expenditure on the Scheme	50% share of I.C.Coc.C.	
i) Pay of Estt.	1720	860—0—0	
ii) Allowance & Hon.			
Travelling allowance	221	110—8—0	
Dearness allowance	1380	690—0—0	
iii) Contingencies.			
Office Exp. & Misc.	724	362—0—0	
Labour, seeds, manures etc.	4828	2414—0—0	
	8873	4436—8—0	4436—8—0
3. Unexpended balance, if any.			Nil
		Total	4436—8—0

Outstanding liabilities, if any.

II. *Details:* — Expenditure in excess of the receipts during 1952-53 is Rs. 1273-0-0

III. Please state whether the accounts have been audited by the Accountant General, Bombay. If not whether arrangements for audit have been made: Arrangements for auditing the accounts will be made shortly.

Poona-1, March, 1954.

(Sd.) for Director of Agriculture.

Audit certificates in respect of the schemes financed by the Indian Central Coconut Committee for 1952-53

Name of Scheme	Opening balance on 1-4-1952	Revenue Receipt from the scheme	Committee's grant	Total expenditure for 1952-53	Indian Central Coconut Committee's share of expenditure	Closing balance on 31-3-53	Remarks
XX		XX		XX		XX	XX
2. Coconut Nursery at Ratnagiri	3358 A	122 D	6400 A	8873	4437 D	3042	A--Amounts adjusted against the deposit account of grants in 1952-53 as shown in the audit certificate for 1951-52. D—Pertain to the year 1952-53 but adjusted in the Deposit account of grants in 1953-54 leaving a debit balance of Rs. 1273/-

Certified that the above expenditure was duly audited by this office and also that the Committee's grants received on the above account were utilised for the purpose for which they were sanctioned.

(sd.) Assistant Accounts Officer.

Subject No 5 — Coconut nursery scheme at Ratnagiri in Bombay State— proposal for grant of water allowance to staff.

The Indian Central Coconut Committee had, at its 17th meeting (April 1953) sanctioned the grant of water allowance to staff employed in the above-mentioned scheme, during the period 1-1-1952 to 15-6-1952 (Vide Subject No. 49 of the proceedings of that meeting).

The Government of Bombay have now forwarded a proposal from their Director of Agriculture for the grant of the allowance for the period 1-1-1953 to 15-6-1953 to the staff in the scheme (*Vide* copy of their letter with copies of enclosures attached). According to the proposal all Government servants under the administrative control of the Government of Bombay stationed at Ratnagiri and actually residing within the limits of the Ratnagiri Municipal Borough and drawing a pay of Rs. 210 or less are eligible for the allowance at the rates stated therein. The staff employed in the coconut nursery scheme at Ratnagiri were also therefore eligible for the allowance.

The expenditure involved on this account is of the order of Rs. 60—8—0 only, half of which the Committee has been called upon to meet. The Bombay Government propose to meet the expenditure from within the sanctioned budget for the year 1954-55 and they have requested the Committee's approval of it.

In the circumstances it is recommended that the Finance Sub-Committee may agree to meet 50 per cent of this expenditure on condition that it is met from within the allotment sanctioned for the current year.

Copy of letter No. ICCC 3053/23307-B dated 15th May, 1954, from the Assistant Secretary to the Government of Bombay, Agriculture and Forests Department, Bombay Castle, Bombay, to the Secretary, Indian Central Coconut Committee, Ernakulam.

Subject:— Water allowance to staff employed in scheme for establishment of coconut nursery, Ratnagiri.

I am directed to refer to your letter, No. F. 35 14/53-Acctt dated the 4th May 1953, on the subject mentioned above, and to forward herewith copies of the State Director of Agriculture's letter No. Res 934-CNR-2863, dated the 15th April, 1954 and of its accompaniment, and to request you to move the Committee to approval of the Director's proposal to sanction the total water allowance of Rs. 60-8-0 to the staff employed in the scheme for the establishment of a coconut nursery at Ratnagiri during the period from 1st January, 1953, to 15th June, 1953.

2. The cost involved on this account will be met from the grants sanctioned for the scheme during the current year.

An early reply in the matter will be appreciated.

Copy of letter No. Res/934-CNR/2863, dated the 15th April, 1954, from the Director of Agriculture, Bombay State, Bombay.

Subject.—Scheme for the establishment of a coconut nursery at Ratnagiri (Nandgaon)—Grant of water allowance to staff—

Reference:—

1. Government letter No. 6083/37245-B dated the 20th September, 1952 addressed to the Secretary, Indian Central Coconut Committee, Ernakulam.
2. Letter No. F. 33(14)/53-Accts. dated the 4th May 1953 from the Secretary, Indian Central Coconut Committee, addressed to Government.

The Horticulturist to Government, Bombay State, Poona has made a proposal for the grant of water allowance to the staff of the Coconut Nursery, Ratnagiri (Nandgaon) for the period from 1st January, 1953 to the 14th June, 1953, in his letter No. H/E-16/1268 dated the 1st March 1954, a copy of which is enclosed for the information of Government.

I agree to the proposal made by the Horticulturist to Government and am to request you to move the Government to forward the proposal to the Indian Central Coconut Committee for approval, and to sanction an expenditure of Rs. 30-4-0 being its share (50%).

Copy of letter No. H/E-16/1268 dated 1-3-1954 from the Horticulturist to Government, Bombay State, Poona, regarding Coconut Nursery, Ratnagiri, sanction of water allowance.

I have to state that the Collector of Ratnagiri under the powers delegated to him under the G. R., F. D. No. 3518, dated 8-12-50 has sanctioned water allowance to all the low paid Government servants, under the administrative control of Government of Bombay, stationed at Ratnagiri and actually residing in the limits of the Ratnagiri Municipal Borough and who have been drawing Rs. 210/- or less per month, except the Police Department, for the period from 1-1-1953 to 15-6-1953 (both days inclusive) at the rate of Rs. 3/- p. m. for Class IV Government servants, and at the rate of Rs. 5/- p. m. for other classes of Government servants, who are drawing pay of Rs. 210/- p. m. or less.

As desired by the Collector in the penultimate para of his order, the Agricultural Assistant I/C Coconut Nursery, Ratnagiri, has certified in his endorsement No. 93 dated 14-2-1954, that the staff of the Coconut Nursery were required to obtain water at price adding materially to the cost of living and has claimed the water allowance for the staff concerned the water allowance due to them.

I agree with the proposal made by the Agricultural Assistant and would request you to allow me to incur an expenditure of Rs. 60/8/- (vide details given below) on account of water allowance to the staff working at Coconut Nursery, Ratnagiri.

Details:

1.	Shri V. S. Sane, Agricultual Assistant—Pay @ Rs. 76/- p. m. Water allowance @ Rs. 5/- p. m. from 1-1-1953.	Rs. 27–8–0
2.	Shri T. M. Mali, pay @ Rs. 41/- p. m. Water allowance at Rs. 3/- p. m. from 1-1-1953 to 15-6-1953.	Rs. 16–8–0
3.	Shri Y. C. Jogannwar, Peon, Pay at Rs. 32/- p. m. Water allowance at Rs. 3/- p. m. for the period 1-1-1953 to 15-6-1953.	Rs. 16–8–0
	Total	Rs. 60–8–0

In this connection, I may add for your information that the scheme for the establishment of the coconut nursery, Ratnagiri is partly financed from the funds of Indian Central Coconut Committee and Bombay State and sanction from the Indian Central Coconut Committee may also please be obtained if necessary.

The favour of very early order is solicited.

APPENDIX II

SECRETARY'S NOTE

Subject No. 7 — Central Coconut Research Station, Kasaragod—Progress Report for the year ending 30-6-1954.

Attached to this note is a copy of the summary progress report on the Central Coconut Research Station, Kasaragod for the year ending 30-6-1954. Copies of the report have been sent to the Indian Council of Agricultural Research for consideration of the Scientific Committees of the Council and their comments, if any, will be placed for the consideration of this Committee at its next meeting.

The following items of information on the administrative side not given in the annexure may be noted:-

1. The sale deed relating to the transfer of the Madras Government's Coconut Research Station at Kasaragod to the Committee for development as the present Central Coconut Research Station was executed in February, 1954 and registered in the office of the Sub-Registrar, Kasaragod in May, 1954.

2. The Madras Government have recently informed the Committee that they have no objection to place at the disposal of the Committee the 35 cents of Government land adjoining the Central Coconut Research Station which the Committee had offered to purchase from the Madras Government. The Collector of S. Kanara has been addressed to fix the market value to be paid by the Committee for the land.

3. In the note on the progress report for last year the Committee's attention had been invited to the Madras Government's request that the Committee might pay a certain amount of extra interest that had accrued on additional compensation awarded by the Sub-Judge, Mangalore in respect of the land acquired for the Central Coconut Research Station, Kasaragod, although the responsibility for it was partly that of the Collector, South Kanara and partly that of the court. The Government of India who were again referred to in the matter have now advised that the additional liability is *prima facie* the result of mistakes committed in the State Government's offices. They have, however, left the matter for the Committee's decision. The matter is being placed before the Committee separately (*vide* subject No. 50).

During the year under report 10,076 selected coconut seedlings were supplied to the public and 3,250 selected seednuts to the Director of Agriculture, Hyderabad.

A total of 14,261 seednuts were sown in June, 1954.

The report may first be considered by the Agricultural Research Sub-Committee which will report to the full Committee.

SUMMARY REPORT FOR THE YEAR ENDING 30TH JUNE, 1954 OF

CENTRAL COCONUT RESEARCH STATION, KASARAGOD

I. BOTANY AND BREEDING

1. Study of exotic varieties of the Coconut:-

(a) ***Study of adult palms:-*** The study of adult palms of 21 exotic varieties for morphological and economic characters with special reference to production, nut and copra characters was continued. Among the varieties studied, Laccadives, Fiji, Philippines, New Guinea and Cochin China continue to give good yields with copra and oil contents comparable to those of the West Coast Tall variety. Selected seednuts of these promising varieties have been secured for raising seedlings for supply to growers. One palm in variety *Spicata* which produces mostly female flowers without spikelets produced one bunch with a few spikes during the year. Variety *Androgena* continues to produce only male flowers as in previous years. In variety Philippine Laguna, one nut was observed to give soft buttery kernel and viscous oily liquid instead of the usual hard meat and clear nut water.

(b) ***Study of seedlings:-*** The seedlings of Malayan and Andaman varieties planted in 1952-53 were under observation. Varieties, Malayan Tall Green and Andaman Round appear to be more vigorous than others. Malayan Dwarf Orange is slow in growth and dwarfish in stature.

(c) ***Study of seednuts:-*** Seednuts of exotic varieties obtained newly through the courtesy of the Indian Council of Agricultural Research from Borneo, Philippines, Seychelles, East Africa, Jamaica, Malaya, Guam, British Solomon Islands, Trinidad and Panama during the year were studied for nut characters before they were planted in the nursery.

Among these varieties, those from Borneo, Philippines (San Ramon) and Panama were the largest in size averaging from 5000 to 6500 cc. in volume and weighing from 3½ to 5 lb. per nut (with husk). The smallest of the collection was *Coco nino* from Philippines. This had a volume of about 200 cc. and weight of 9 oz. per nut with husk. The collection contained nuts of varying shapes ranging from long and oblong to round. The nuts of these varieties have been planted in the nursery for raising seedlings.

2. Study of indigenous varieties:- A few interesting types and forms of coconut other than the ordinary Tall variety of the West Coast are reported to be occurring in certain parts of India. Attempts are being made to locate them and collect planting material. Seednuts of *Gangabhavani*, *Verri Kobbari* and *Rangoon Kobbari* were obtained from the East Godavari District and planted in the nursery for producing seedlings for planting in the field. Rangoon Kobbari germinated earlier than the others. Seedlings are under observation.

3. Trial of new varieties:- The seedlings of the following six varieties which were planted in the field in 1952 were under study for rate of production of leaves, height and girth at collar.

(1) Chowghat Dwarf Orange
(2) Chowghat Dwarf Green (medium)
(3) Chowghat Dwarf Green (small)
(4) Ordinary Tall
(5) Chowghat Dwarf Orange (natural cross)
(6) Tall x Dwarf (hybrid)

The natural cross of Chowghat Dwarf Orange and Chowghat Dwarf Green (small) continue to grow more vigorously than the others.

4. Studies of species of Cocos other than Cocos nucifera:- Three species of *Cocos*, viz. *Cocos plumosa*, *Cocos schizophylla* and *Cocos australis* were under observation. *Cocos schizophylla* is seen to produce spadices regularly every month as in the case of the ordinary Coconut (*Cocos nucifera*). The production of inflorescence in *Cocos plumosa* is irregular, only two spadices being produced during the year, *Cocos australis* is regular in flowering but poor in fruit set.

5. Study of mother palms: All the 700 mother palms on the Station were studied for nut production and found to maintain their high yields. The seedlings raised from nuts collected from these palms during the 1953 seednut season were studied for their vegetative characters, as well as petiole colour. Some variation in the intensity of the pigment in the progenies was noted. More detailed observations are in progress.

6. Study of the West Coast variety on a plantation scale: Individual tree records were kept with a view to studying the performance of the trees of the West Coast variety growing on the different soil types of the Station, such as littoral sand, red loam and laterite gravelly soils. The yield of trees was generally poor in littoral sand and was good in red loam.

The distribution of the total yield of the year 1953 among the different seasons was worked out for the entire Station. The yield of nuts obtained during the summer months (March, April May) worked out to 37.2 percent of the total yield for the year. The yield for the south-west monsoon period (June, July and August), north-east monsoon period (September, October and November) and the cold season (December, January and February) worked out to 23.6, 17.6 and 21.6 per cent respectively. This is in conformity with the observations made in previous years.

7. Hybridisation: Hybridisation work for the season was taken up in February and continued upto the end of May till the break of the monsoon. In order to study how colour, shape and size of the nuts of the parent trees are reflected in the progeny, the following crosses were taken up this year.

(1) Gangabondam ♀ x Tall ♂
(2) Laccadive Ordinary ♀ x Andaman Dwarf ♂
(3) Andaman Dwarf ♀ x Laccadive Ordinary ♂
(4) S. S. Green ♀ x Andaman Dwarf ♂
(5) S. S. Apricot ♀ x Gangabondam ♂
(6) Dwarf Orange ♀ x Gangabondam ♂
(7) Laccadive Ordinary ♀ x New Guinea ♂
(8) Laccadive Ordinary ♀ x S. S. Green ♂

The following crosses were repeated for the production of economic hybrids.

(1) Tall ♀ x Dwarf ♂
(2) Tall ♀ x Gangabondam ♂
(3) Tall ♀ x Laccadive Ordinary ♂

A total number of 3,942 female flowers from 134 inflorescences of 42 selected parents was cross-pollinated during the season.

The pollinated nuts of last season's crosses numbering 700 were sown in the nursery.

Study of hybrids and their progenies: The Tall x Dwarf hybrids which were planted in 1940 continued to yield well. The F_2 progenies of these hybrids which were planted in 1952 are under study for their vegetative characters. Most of the hybrid seedlings of economic crosses appear vigorous in growth. The progenies after nursery studies will be planted out in the field for studying their yield performances.

II. CYTO - ANATOMY

Regular cyto-anatomical investigations could be commenced only towards the latter part of the year as there was delay in obtaining the required equipment and accessories.

1. Morphology and anatomy of the crown: In order to study the basic vascular pattern of the crown or "cabbage" of the coconut palm, the shoot apices were dissected and the required specimens were killed and fixed and are being embedded in paraffin. Microtome sections will be taken and examined to study the pattern of vascular structure.

2. Developmental morphology and anatomy of the nut: The various stages of development of the nut were observed with a view to trace its developmental morphology. Specimens representing definite stages were collected and preserved for detailed anatomical studies. The embryo of the nut giving buttery kernel in variety "Philippines Laguna" did not show any anatomical difference.

3. Cytological study of the different varieties of the coconut: Preliminary pollen smear studies were undertaken to determine the proper stage of the coconut flowers to be fixed for undertaking cytological studies. The active stage of division of pollen mother cells was observed to take place about 60 to 80 days prior to the opening of the spathe. Suitable flower materials have been fixed for detailed studies.

4. Studies in pollen morphology: The pollen grains of mature anthers of the ordinary Tall variety of coconut were found to be ellipsoid in shape and measuring $68/^{\mu}$ x $31/^{\mu}$. The pollen has a single furrow and single germ pore. No marked differences in the size or shape of the pollen were observed in the pollen grains of different varieties. The percentage of sterile pollen was markedly high (74%) in the Dwarf palms while it was comparatively low (12%) in the case of the ordinary Tall palm. There was no significant difference in the percentage of sterile pollen in the same palm in different months of the year.

A study of the pollen population in the atmosphere was made during the summer of 1954 with the help of slides set up in an improvised aeroscope at different heights. Large deposit of pollen was obtained in slides kept at 35 feet height from ground level and on days when the adjoining palms bloomed. The slides facing west showed a larger deposit of pollen probably due to the air currents moving from west to east during most part of the day.

5. Studies on the shedding of buttons: Investigations on the causes and methods of prevention of shedding of buttons in the coconut were continued. In the trial of spray of hormones initiated during the previous year, sprays of 2, 4-Dichlorophenoxy Acetic Acid in 30 p. p. m. concentration reduced the undue shedding of buttons. But they have been found to cause marked reduction in the size of the nuts as it matured and in some cases even barrenness. Despite these defects, the total quantity of copra obtained from a sprayed bunch showed an increase of 38 to 90 percent over the untreated or control bunches. Trials of sprays of 2,4-D were repeated during the year with certain modifications with a view to reducing the defects in the development of the nuts. Post-fertilization sprays have given indications of better set and more normal development of nuts than sprays begun prior to the fertilization of buttons. Sprays with substances like cow's urine, coconut water; cononut kernel milk, ∝ Napthalenacetic Acid, β Napthoxy Acetic Acid and p Chlorophenoxy Acetic Acid are under trial. The effects of these sprays are under observation.

To study the anatomical aspects of shedding of buttons and determine the changes that occur in the cells at the point of attachment, buttons at different stages of development have been fixed for detailed examination.

6. **Study of the problem of occurrence of barren nuts:** Study of barren nuts collected every month from trees known to produce a high percentage of barren nuts was continued. The observations have generally confirmed the results reported last year.

Successive inflorescences opening every month from eight selected trees producing barren nuts was emasculated and left for natural pollination to see if fertilization by foreign pollen would reduce barrenness. Observations on the setting of buttons, production of barren and good nuts are in progress.

Fortnightly spraying with substances containing natural hormones, like cow's urine, coconut milk etc. was attempted on selected trees. Observations are in progress.

7. **Floral studies in green manure plants:** Seeds of six green manure plants from abroad received through the Indian Council of Agricultural Research and 20 species of *Crotalaria* under trial were sown and studied with special reference to floral morphology, anthesis, period of receptivity and crossability. Seeds of *Crotalaria goreensis* were multiplied as it was most outstanding of the different species under trial with profuse branching, thick growth of foliage and succulent stem and free from the attack of pests and diseases.

Among the new introductions of green manure plants, *Astragalus sinensis* obtained from China as well as Japan did better than others. Seeds of *Sesbania macrocarpa* from United Satates flowered within about a month of sowing with flowers appearing in the axils of the fifth leaf when the plants were barely 12" to 14" high. Germination of the seeds of *Tephrosia noctiflora* from Ceylon, *Canavalia ensiformis* from Sudan and *Aschynomene americana* from Ceylon was fair. The growth and habits of the green manure plants are being studied

Interspecific crosses of *Crotalaria* species attempted last year did not result in seed set.

8. Floral biological studies of palms other than Coconut: Floral biological studies of the palms found growing in coconut plantations were continued. Further observations were made on the flowering Palmyra [*Borassus flabellifer*]. In the Palmyra the duration of the male phase in an inflorescence ranged from 70 to 90 days and the female phase ranged from 20 to 30 days. Among the female flowers produced a large proportion is shed within a period of about 6 weeks after stigmatic receptivity of the flowers as in the case of the coconut palm. Ripe nuts of Palmyra palms growing in the Districts of Tinnevelly and Vizagapatam were obtained and planted in a small plot in the Hill Block along with the nuts of the local variety for a comparative study of germination and growth.

III. AGRONOMY

1. N. P. K. manurial experiment: The manurial experiment started last year with different combinations of 3 levels of nitrogen, 3 levels of phosphoric acid and 3 levels of potash, with and without a green manure crop was continued. As already reported last year, a 33 x 2 confounded design in six-plot blocks replicated twice has been adopted. The three levels of nutrients supplied are 'zero', 0.75 lb and 1.50 lb. per tree per year of nitrogen, phosphoric acid and potash supplied in the form of ammonium sulphate, superphosphate and muriate of potash respectively. The scheduled doses of manures were given for the first time in August 1953. The green manure crop of *Crotalaria striata* raised in the experimental plots was affected by heavy rains and did not give substantial yield of green stuff

The data of yield of nuts and number of female flowers produced were recorded for each individual tree under the experiment. The nuts of a few selected trees from each of the experimental plots were studied for weight and volume of unhusked and husked nuts and for copra content, during the three representative seasons of the year, with a view to studying the influence of manuring on these characters. It is too early to analyse the data since the response of coconut palms to treatments is generally felt only after the commencement of the treatments.

2. Cultural experiments:

(i) ***"Cultivation and Manuring" versus "No cultivation and manuring":*** An "uncultivated and unmanured plot" is being maintained at the Station from 1916 onwards to study the long term effect of such treatment, an adjacent plot, which is regularly cultivated and manured, serving as control. During the year 1953 the average yield per tree was 22 nuts in the "uncultivated and unmanured plot" whereas it was 31 nuts in the "regularly cultivated and manured" plot. The previous observation that continued neglect of the garden in regard to intercultural and manurial operations results in reduced yields is thus confirmed.

(ii) ***Intercultural practices:*** The cultural experiment started in 1952-53 season with the object of determining the relative effects and economics of the different intercultivation practices such as ploughing, digging, piling mounds and forming basins was continued. The scheduled observations on the yield and the number of female flowers produced in each of the individual experimental trees were made and recorded regularly. It is too early to analyse the data.

An accurate record of the labour employed for the different cultural operations was kept with a view to working out the units of labour required for the different operations. The units of labour required and the cost at prevailing market rates are given below.

	Units of labour required (per acre)	Cost Rs. A. P.
1. Ploughing with iron plough twice	20 pair hours	12—8—0
2. Digging once	92 man hours	17—4—0
3. Piling mounds and levelling	161 man hours	30—3—0
4. Forming basins and covering (for 60 trees)	76 man hours	14—4—0

Ploughing is found to be the cheapest of the operations.

3. Chilean Nitrate experiment: The observational trial initiated during the last season to compare Chilean nitrate with ammonium sulphate as a source of nitrogen for the palm, with and without phosphoric acid and potash, was continued. The scheduled observations on the yield of nuts and number of female flowers produced were regularly made and recorded. Since the treatments were given for the first time during the year, it is too early to assess the effect.

4. Husk burial and Mulching in seedling pits: The object of this experiment started in 1952 is to determine whether by burying coconut husks in seedling pits or by mulching the pits with coir dust or saw dust, the effect of drought on the seedlings in summer could be minimised. The seedlings had been planted in sandy soil subject to drought during summer and did not receive any watering during the rainless months.

The experimental seedlings were studied for vegetative characters relating to growth. The seedlings planted along with husks appear to have made better growth than the others. Drying of the leaves of seedlings was much less in this treatment than in the control, the number of leaves completely dried up being only about 2 as against 5 observed in the control. The observations are being continued.

5. Intercropping in coconut plantations: An attempt to investigate the possibility of growing pepper in the interspaces of a coconut garden was made during the year. The cuttings were trained on Erythrina standards as well as on bearing coconut palms. Though the cuttings established well, many of them dried up later on. Fresh pepper cuttings are being planted. Experiments on intercropping of coconut gardens with other crops could not be taken up during the year for want of facilities.

6. Nursery studies:

(i) ***Observations in bulk nursery:*** Seednuts planted in the nursery in 1953 according to the month of harvest, were observed for germination. The total germination percentage was relatively high in the seednuts harvested in the month of April. This is in conformity with the findings of previous years. The data also show that the interval between the time of harvest of seednuts and the peak period of their germination when planted in the nursery is 5½ to 6 months irrespective of the month of harvest.

(ii) ***Lowering versus dropping of seednuts:*** Bunches of nuts intended for planting as seednuts are generally lowered from the crowns by means of ropes. In order to determine whether harvesting them in the usual way will affect the germination of seednuts and further growth of seedlings, an experiment had been laid out last season. Observations made on the germination of nuts and the growth of seedlings show that dropping of nuts had no adverse effect on these characters. Lowering of the nuts by ropes appears to be necessary only in those areas where the trees are very tall and the ground below very hard and the dropping of nuts would result in the cracking of the nut inside.

(iii) ***Position of nut when floated in water in relation to germination and growth of seedlings:*** This study showed that seednuts, which floated in a vertical position, germinated early and gave vigorous seedlings, when compared to nuts which floated in an oblique or horizontal position. The differences in the growth of seedlings were quite appreciable and could be detected easily by visual observation.

(iv) ***"Planting" versus "Suspending" seednuts in different positions:*** Nursery observations showed that nuts planted in the soil germinated, in general, earlier than those hung up in the air. Among the nuts kept for germination in the different positions, viz., vertical, horizontal and inverted, sprouts emerged relatively quickly in the nuts kept in the horizontal position. All the nuts kept in the inverted position had also produced sprouts but as they had to grow in a reverse direction they got entangled in the husk and took considerable time to come out. Seedlings arising from the nuts kept in the different positions did not show any marked differences in growth.

7. Irrigation with sea water: The investigations on the effect of irrigating coconut palms growing in sandy soil in summer with fresh water or saline water, was continued. The watered trees, particularly those receiving saline water, had more number of leaves in their crown than the control (not watered) trees.

8. Nut to nut variation in a bunch: The detailed data gathered during the course of these studies in the previous year were scrutinized. It was seen that the variation in the amount of coconut water present among the nuts of the same bunch was as high as 25 per cent. Next in variability came the volume of internal cavity. Least variation was observed in the case of external measurements such as length and girth. In respect of the economic characters like weight and volume of husked nuts and copra content, the coefficient of variability was 6 to 8 per cent showing thereby that these characters are not very variable from nut to nut.

9. Driage of ripe nuts in storage: The study started last season (March to May) was concluded during the year. The object of the investigation was to assess the influence of different factors such as medium of storage, extent of husking and position of nut in storage on the driage of nuts. The following are the salient features observed:-

(i) In the nuts stored for 2½ months, sand storage reduced driage by about 50 per cent.

(ii) Unhusked nuts did not dry to the same extent as partially or fully husked nuts. Fully husked nuts dried up completely and did not show any nut water inside after 2½ months.

(iii) Among the nuts kept in different positions driage was comparatively less in nuts kept vertically with the 'eyes' upwards than in nuts kept in horizontal or inverted positions.

(iv) None of the unhusked nuts stored in sand dried up completely during 2½ months of storage.

10. Studies on green manure crops on a bulk scale: Observations on *Pueraria phaseoloides* and *Calopogonium mucunoides* were continued. Good crops were obtained during the year also without any fresh sowing of seeds. *Pueraria* revived mostly from green vines that survived during the summer, while *Calopogonium* came up exclusively from self-sown seeds. The same trend in growth as mentioned in the previous report was seen during this year also. This year, however, early cessation of north-east monsoon rains caused the crops to dry up much earlier than usual.

11. Crop weather studies:

(i) ***Meteorological observations:*** Regular observations of the meteorological instruments installed at the Observatory in connection with the crop weather studies were taken and recorded. The salient features of the observations made are the following:-

(a) **Rainfall:** The total rainfall received during the year (7th June 1953 to 6th June 1954) amounted to 130.27 inches on 112 rainy days as against 115.63 inches received on 110 rainy days of last year and the 20-year average of 144.07 inches. The south-west monsoon commenced rather late and was weak both in the beginning and towards the end. During this period 90.46 inches were received on 78 rainy days as against the 20-year average of 112.18 inches and 93 rainy days. The north-east monsoon, though almost normal from the point of view of the quantity of rain received, was badly distributed. Rains ceased abruptly by the end of October and there was no rainfall worth mentioning in the months of November, December and January. The hot weather rains were above normal in quantity and were also fairly well distributed. A total of 26.94 inches was received on 20 rainy days as against 4.85 inches received during 1953 and the 20-year average of 16.90 inches.

(b) **Temperature:** The average minimum temperature for a month was the lowest (65.4°F) in January 1954 while it was the highest (78.4°F) in April 1954. Continuous records of maximum temperature were not available for the previous years to facilitate comparisons.

(c) **Humidity:** During the year the average maximum humidity for a month was 95 percent in the months of July 1953 and minimum (82.6 per cent) in January 1954.

(d) **Hours of bright sunshine:** The lowest amount of sunshine per day (2.3 hours) was in July 1953 while the highest (9.9 hours) was in February 1954.

(e) **Wind velocity:** The mean wind velocity for a day was highest (2.31 m. p. h.) in April 1954 while it was the lowest (1.27 m. p. h.) in September 1953.

(f) **Soil temperature:** Soil temperatures were recorded at three different depths, viz., 5 cm., 15 cm. and 30 cm. twice daily at 7.30 a. m. and 2.30 p. m. I. S. T. In general, the temperature in the morning increased with depth while a reverse trend was noticed in the afternoon. The range of temperature variations was considerable at 5 cm. depth while it became narrower as the depth increased.

(ii) ***Crop studies:*** In order to study the influence of meteorological factors on the growth of seedlings planted out in the field, a plot adjacent to the meteorological observatory has been planted out in September 1953 with the seedlings of Tall Green, Tall Brown, Dwarf Green and Dwarf Yellow in a replicated and randomised plot. Regular observations of the growth characters of the seedlings are being made and recorded. A few selected bearing palms in an adjacent plot are also under detailed observation for leaf production and shedding, and flowering and fruiting phases.

IV. CHEMISTRY

The full programme of work of the Section could not be carried out for want of adequate laboratory equipment, gas and water supply facilities. Certain items of work were, however, taken up and the results are briefly reported below.

1. **Soil survey:** Soil survey work was continued and new sites were examined whenever necessary.

2. **Studies on soil moisture:** The presence of adequate quantities of moisture in the soil during the rainless months is very necessary for the proper growth and yield of the coconut. The study of moisture content in different soil types was, therefore, continued.

(i) ***Seasonal variations in soil moisture:*** Study of seasonal variation of soil moisture in sandy soil, red loam and lateritic gravelly soil was continued. At the peak of summer the surface soil of these soil types dried up to a moisture content of 0.1, 2.2 and 5.9 per cent respectively. A higher percentage of moisture (13%) was noticed in the second foot layer of lateritic gravelly soil while it was only, 5.5 per cent in red loam and 0.2 per cent in sandy soil.

(ii) ***Conservation of moisture in seedling pits:*** The investigation of the moisture conserving capacity of seedling pits 2½ feet depth of rectangular and square size in two different aspects of the southern and northern slopes of the Hill Block and on level ground was repeated during the summer of 1953-54. The results are generally in agreement with those reported last year. The moisture conserving capacity of the pits of different shapes is found to be to some extent influenced by the aspect of the sun during the summer period and the topographical lay of the land. The east-west rectangular pits on the hillock contained generally more moisture than the north-south rectangular pits. On level ground there was no appreciable difference in moisture content between pits of different shapes.

3. **Mechanical composition of soils:** The study of the mechanical composition and other physical properties of the soil samples collected from the soil profile pits has been started. The samples from the "No Manure—No Cultivation" plots—unmanured and uncultivated for the last 35 years—and the regularly "Manured and Cultivated" plot located in the red loamy type of soil showed more or less the same composition in respect of coarse sand, fine sand, silt and clay fractions. The other samples are under analysis.

4. Investigation of the yellowing of leaves of trees and seedlings planted in sandy soil:

(i) ***Trees:*** The trees which received a complete fertilizer mixture, viz. N. P. K. and trace elements in October 1951 and had completely recovered from the yellowing have maintained their healthy condition till the commencement of the 1954 summer (March). The outer leaves are now tending to turn yellow. A second application of manures during 1954 season is contemplated.

(ii) ***Seedlings:*** The experiment involving 1280 seedlings laid out in randomized and replicated blocks and having 20 treatments including major and micronutrient elements was continued. Seedlings were manured with the scheduled doses of manures. Determination of pH of the soil samples collected from the different plots six months after the application of manures showed no appreciable difference in pH values. No perceptible difference in the condition of the seedlings due to the different treatments could be noticed so far.

5. Phosphate manuring of leguminous green manure crops:

(i) ***Manuring crotalaria striata*** with superphosphate at 60 lb. P_2O_5 per acre gave erratic results due to difference in stand of the crop in the different plots. The experiment has been repeated during the present season.

(ii) ***Manuring Crotalaria striata with phosphate along with small quantities of N. P. and K. in sandy soil:*** Data of a randomised and replicated experiment with 16 treatments consisting of N. P. K and combinations at one level with and without lime gave on statistical analysis the following results:–

(a) P plus K and N plus P plus K treatments gave significant increase in yields, the increase being 110 and 71 per cent respectively over "No Manure" control plots.

(b) Among the different main effects and interactions the main effect of potash and phosphoric acid alone are significant.

(c) Application of lime to sandy soil did not show any beneficial effect on the yield of *Crotalaria striata.*

(iii) ***Study of Crotalaria striata in pot cultures:*** *Crotalaria striata* grown in pot cultures did not establish well. Fresh attempts are being made.

6. Study of the breakage of petioles of coconnt palms: The treatments under this experiment were revised as a result of analysis of petiole samples. The new treatments are: Ammonium Sulphate (1 lb. N), Superphosphate (1 lb. P_2O_5) and Muriate of potash (1 lb. K_2O) with and without lime over a basal dressing of 50 lb. green leaf per tree per year. Records of healthy leaves, broken leaves, nature of breakage etc. have been made for individual trees. No specific effect could be noted so far.

7. Study of the effect of common salt on coconut soils: The experiment to study whether common salt is beneficial to coconut soils was revised and continued in sandy soil near the sea coast, red loam and laterite gravelly soils. The modified treatments are: (1) Control—No manure, (2) common salt at 600 lb. per acre, (3) common salt 900 lb. per acre, and (4) muriate of potash equivalent to 600 lb of common salt per acre. The determination of moisture at fortnightly intervals is being continued. From data available at present, it is found that the application of common salt increases soil moisture in all the three types of soil, the increase being more marked in the plots receiving common salt at 900 lb. per acre. In the plots receiving common salt at 600 lb. per acre, the following average values were obtained. The sandy soil near the sea coast increased in moisture content, in the 1st and 2nd foot layers respectively, by 0.2 and

0.3 par-cent, the laterite gravelly soil by 0.4 and 0.7 per cent and the red loamy soil by 0.1 and 0.4 per cent Muriate of potash is less effective than common salt in conserving soil moisture. Chemical investigations could not be taken up for want of facilities.

8. Pre-treatment of seed coconut in nutrient solutions:

Injecting nutrient solutions into the husk of seed coconuts of ammonium sulphate, water soluble extract of superphosphate and muriate of potash singly and in combinations was found to affect the proper germination of nuts and the growth of seedlings. N plus P and N plus P plus K treatments proved most harmful giving respectively 2.5 and 17.5 per cent of germination as against 90 per cent in the untreated nuts. The seedlings are under observation. Nuts have been sown in the present season after placing the scheduled doses of manures mixed with sand at the bottom of the planting holes. Observations are in progress.

9. Copra-making by kiln drying:

(i) Copra making by kiln drying in the "modified 10-acre Malayan Copra Kiln" was demonstrated on several occasions. The quality of copra produced in the kiln continued to be good.

(ii) Arrangements are being made to instal at the Research Station a hot air "Chula" Copra Drier manufactured by the Tyne-side Foundry & Engineering Co., Ltd., Newcastle-on-Tyne, England and to make a comparative study of copra-making by this process and kiln-drying as well as sun-drying.

(iii) Sample of "Chula"-dried copra obtained from Ceylon were found to be of good quality. It contained 4.9 per cent moisture and 68 per cent of oil (chemical extraction). The copra remained in good condition for about 15 days after which time it developed mould and fungus attack, just as any other copra, when stored under ordinary conditions of storage such as closed tin containers, gunny bags etc.

10. Miscellaneous:

(i) ***Extraction of juice from coconut husk***: It is reported that juice extracted from green coconut husks is of some manurial value. Green husks from 12 months (mature), 11 months and 10 months old nuts gave, on extraction immediately after harvest, on an average, 164 cc., 314 cc. and 648 cc of juice per husk containing respectively 11.7 gms, 10.5 gms and 9.3 gms. of total solids in 100 cc. of juice. There was considerable reduction in the quantity of the juice obtained when the husks were stored for some time. When husks from 12 months old nuts were stored in shade for two days, only 72 cc. of juice per husk could be extracted. The juice, however, contained a higher solid matter content, viz. 17.1 gms. in 100 cc. When husks of the same age (12 months) were stored in shade for three days as little as 10 cc of juice only could be extracted.

(ii) ***Study of the quality of tender nuts in relation to method of storage***: This study conducted last year showed nut to nut variation in respect of quality of tender nut water and meat. To study quality in relation to the exact age of the nut 22 trees more or less the same in respect of age, manurial treatment given, soil type on which grown etc. and containing nuts of the same shape, size, colour etc have been selected and observations on stigmatic receptivity of the buttons recorded regularly. Tender nuts of uniform stage of development will be taken up for further study.

(iii) ***Study of visual deficiency symptoms of the coconut by study of seedlings in solution and sand cultures:*** Preliminary trials for standardisation of the technique of solution and sand culture are under way. One-year old seedlings did not establish well in culture solutions Efforts are being made to grow seedlings in sand cultures.

(iv) ***Wilting co-efficient of coconut soils:*** The technique of determining the permanent wilting point co-efficient of different types of coconut soils by growing "dwarf sunflowar" as an indicator plant is being standardised.

(v) ***Ground water level in coconut soils:*** In order to see if the rise and fall of the sub-soil water table during different seasons has any bearing on the condition of the coconut palms, the level of water in 10 wells situated in different parts and elevations of the Station in different soil types were measured at regular intervals. The water level at the peak of summer was 9' 5" below ground level in the western low lying sandy area, 29' 6" in the higher red loam block and 29' 7" in the north corner of the Hill Block. During the South-West monsoon the level of the water in these situations rose respectively to 5' 0", 8' 8" and 8' 3" below ground level.

The water level generally rises with the rains during the south-west monsoon, remains more or less constant for about three months and goes down slowly and reaches the lowest level in the first week of June.

(i) *Analytical work:*

(a) A comparison of the stagnant water in Beach Block and water from an adjacent stream showed that the stagnant water had a total solid content of 0.03 gms. in 100 cc of water, chlorine content of 213 p. p. m. and pH of 7.4. The figures for stream water were 0.01, 46.15 and 7.2 respectively. Both the waters were found suitable for irrigation purposes

(b) An abnormal nut with jelly like meat and viscous water was found to have a water of higher specific gravity, total solid content and viscosity than water of a normal nut. The kernel of the abnormal nut contained less of dry matter and oil than the normal nut.

V. GENERAL

I. Supply of planting material: There is great demand for coconut seedlings produced at this Research Station from all over India. The production of quality seedlings has, therefore, been taken up as a regular feature of work and every attempt is being made to produce as many seedlings as possible. During the year, 10,076 selected coconut seedlings were supplied to the public A total of 3,250 selected seed coconuts was also supplied to the Department of Agriculture, Hyderabad State for raising a nursery.

A total of 14,261 seednuts has been planted in the nursery in June 1954 for supply of seedlings for 1955 planting season.

I. Advisory: Advice on the proper methods of coconut cultivation and other aspects of the coconut industry was given to a large number of coconut growers, in some cases after actual inspection of ryots' fields. Enquiries by post were promptly replied to. Lay out, schedule of manuring etc in the field experiments on the coconut conducted by other States were scrutinized and proper direction given whenever sought for.

The Director visited some of the important areas covered by the irrigation projects in the Hyderabad state in January 1954 and advised the State Government on the possibility of developing coconut cultivation in the State.

3. Publications: The following articles were contributed for publication:—

(1) "Story of the Humble Coconut" by Shri C. M. John, Director (Farming Supplement of the "Hindu" dated 22nd July 1953.)

(2) "A note on the occurrence of Buttery Kernel in the Coconut" by Shri K. Sathyabalan, Junior Research Assistant.

(3) "Studies on the occurrence of Barren Nuts in the Coconut (*Cocos nucifera* L)—Importance, morphological features and frequency in incidence" by Shri S. R. Gangolly, Cyto-Anatomist and Shri M. C. Nambiar, Junior Research Assistant.

(4) "A note on the floral biology of the Palmyra Palm (*Borassus flabellifer*) by Shri M. Chathukutty Nambiar, Junior Research Assistant.

(5) "Acreage and Production of Coconuts"

(6) "The Home of the Coconut"

by the Director, Central Coconut Research Station, Kasaragod

(7) "How to utilize profitably grass from coconut gardens" by Shri M. Narayanan Nambiar, Farm Assistant.

(8) "Organic manures for coconut gardens" Shri E. J. Varghese, Analytical Chemist.

(9) "Role of Hormones in stepping up coconut production" by Shri S. R. Gangolly, Cyto-Anatomist.

(10) "Coconut Cultivation in Sandy Soils — Problems and Prospects" by Shri C. M. John, Director.

(11) "Cover Crops for Coconut Plantations" by Shri M. M. Krishna Marar, Agronomist.

In addition to the above publications, the text of the "Handbook on Coconut Cultivation" by Shri C. M. John was revised during the year for bringing out the 3rd edition of the book.

(sd.)
C. M. JOHN
Director

Central Coconut Research Station,
Kasaragod P. O. (Madras State),
Dated 31st July 1954

PROGRAMME OF WORK FOR 1954-55

BOTANY AND BREEDING

1. Study of the exotic varieties of the coconut
2. Study of indigenous varieties
3. Trial of new varieties
4. Study of species of *Cocos* other than *Cocos nucifera*
5. Study of mother palms.
6. Study of the West Coast variety on a plantation scale
7. Hybridisation and study of hybrids

CYTO-ANATOMY

1. Study of the morphology and anatomy of the crown of the coconut.
2. Development morphology and anatomy of the nut
3. Study of the morphology of the pollen of Cocos
4. Cytological study of the different varieties of the coconut and allied species.
5. Investigations on the shedding of buttons in the coconut.
6. Study of the problem of the occurrence of barren nuts in the coconut
7. Floral biological studies of green manure plants
8. Floral biological studies of the palms other than the coconut

AGRONOMY

1. N. P. K. manurial experiment
2. Cultural experiment—Intercultural methods
3. Chilean Nitrate experiment
4. Husk burial and mulching in seedling pits
5. Intercropping in coconut plantations
6. Nursery studies
7. Irrigation with sea water
8. Studies on green manure crops on a bulk scale
9. Crop weather observations
10. Miscellaneous items

CHEMISTRY

1. Soil survey
2. Soil moisture studies
3. Investigation on the yellowing of the leaves of trees and seedlings planted in sandy soil
4. Phosphate manuring of leguminous crops
5. Study of the breakage of petioles of coconut palms
6. Experiments on the pre-treatment of seed coconuts
7. Development studies on the coconut
8. Copra studies
9. Deterioration of tender nuts in storage
10. Miscellaneous items

Central Coconut Research Station, (Sd.)
Kasaragod P. O. (Madras State), C. M. JOHN
Dated 31st July 1954. Director

APPENDIX III

SECRETARY'S NOTE

Subject No. 7 — Central Coconut Research Station, Kayangulam—Progress report for the year ending the 30th June 1954.

Attached to this note is copy of a summary of the progress report on the Central Coconut Research Station, Kayangulam for the year ending the 30th June, 1954. As required by the Indian Council of Agricultural Research copies of the report have been sent to them for the consideration of their Scientific Committees. Their comments, if any, will be placed before the Committee for its consideration at the next meeting.

The following facts of a general and administrative nature about the Station relating to the period under report may be noted.

1. The deed regarding lease to the Committee of the land acquired by the Travancore-Cochin Government for the Station had not been executed when the year under report closed. The matter of finalising the schedule of properties to be attached

to the deed was still under correspondence with the Travancore-Cochin Government.

2. The Travancore-Cochin Government accorded sanction in August, 1953 to the transfer to the Committee, on lease, of 2 acres and 6 cents of poromboke lands lying within the perimeter of the Station. These lands had not, however, been actually handed over to the Committee when the year closed. The State Government could not find their way to hand over to the Committee 61 cents of poromboke land constituting a lane that runs due east between blocks VII and VIII of the Station. As, however, these blocks are already protected by barbed wire fencing the presence of this poromboke lane within the Station would not affect it.

3. There were seven harvests during the year and 80,894 nuts were obtained as against 58,125 nuts gathered in the previous year for the same number of harvests.

4. Four hundred and twenty (420) coconut seedlings and 242 lbs. of *Crotalaria striata* seeds were sold to the public during the year. 423 seednuts for experimental purposes were sown in the nursery.

5. The Station extended library and laboratory facilities to the Entomologist of the South Pacific Commission who was conducting investigations on the biological control of the rhinoceros beetle.

6. Attempts to obtain live specimen of *Scolia ruficornis* from Zanzibar for the biological control of the rhinoceros beetle did not bear fruit during the year as the Zanzibar Government could not provide the necessary personnel to collect and despatch the wasps by air. At the request of the Committee the Government of India were attempting to arrange with the Malayan Government for the despatch of the wasps by the Entomologist of the Malayan Government who was reported to be proceeding to Zanzibar to collect the insects for despatch to Malaya.

7. A coconut store *cum* implement shed was constructed at the Station during the year.

The report may first be considered by the Agricultural Research Sub-Committee whose report will be placed before the full Committee.

CENTRAL COCONUT RESEARCH STATION

KAYANGULAM

SUMMARY REPORT FOR THE YEAR ENDING 30—6—1954

I. ENTOMOLOGY

I. The Rhinoceros beetle *Oryctes rhinoceros* L.

I. General: The activity of the adult beetle was noticed throughout the year on the West Coast. Its biology was under study. Experiments were in progress to find out the effect of the quantity and quality of food during larval period on the longevity and fecundity of the adult. As alternate hosts of the beetle, banana and aloe stems were occasionally found to be attacked. Gressitt (1953) has reported the screw pine *Pandanus tectorius* as a favourite alternate host of the rhinoceros beetle in some of the islands in the S. Pacific. In Travancore screw pine is grown extensively as hedge plant but rhinoceros beetle attack on this plant has not been noticed. Laboratory trials were started and are in progress to find out the effect of forced feeding of adult beetles on screw pine.

2. Control of the larvae in breeding places: Experiments with different insecticides against the grubs of the beetle were continued. It was observed that lindane at as low a concentration as 30 p. p. m. was quite lethal to beetle larvae.

3. Persistence of BHC in compost heaps: Compost heaps which had been treated with both the dust and wettable formulations in November 1952 were kept under observation to find out the length of the period up to which the breeding material could attract beetles. Up to August 1953 beetles were observed visiting the compost heaps. The material in the treated heaps was tested biologically every month by introducing fresh grubs. The toxicity of BHC was observed to persist throughout the period under report.

4. Field experiment for the control of the beetle: This experiment was started in 1951 in block I which is about seven acres in extent. All breeding material within the block and outside in a belt of 200 yards is regularly sprayed with BHC for the control of larvae. 15 breeding traps containing cow dung and other decaying organic matter were provided in different corners of the block and these also were sprayed with BHC. The traps are searched for beetles and the trees examined for incidence of fresh attack every month. For control 200 trees in block V are also kept under observation. It was seen that while the incidence of beetle attack in the experimental plot was below 4%, in the control plot it always exceeded 12%.

5. Control of the adult beetle: Trials were started in the laboratory and in the field with the organic phosphorus insecticide Folidol E 605 which contains 1.5% diethyl paranitrophenyl thiophosphate (Parathion). Laboratory trials indicated that all beetles died within 12 hours of contact with 0.04% of this chemical. Field trials have been started in which sand mixed with this chemical has been applied to the leaf axils of coconut palms.

6. Control of the adult beetle in crown of the coconut palm: Observations were continued on trees to the leaf axils of which BHC mixed with sand and clay had been applied. The presence of the insecticide was observed to have a deterrent effect on the beetle especially during the dry months of the year.

7. Biological control of the beetle: An entomogenous fungus probably *Metarrhizium anisoplae* isolated from naturally infected larva was under study during the year. The host parasite relationship and the optimum conditions of infection are being investigated. A strain of this fungus obtained from Coimbatore isolated from *Pyrilla* was bred here and it was found to be unable to infect rhinoceros larvae. A scolid wasp found to prey on some white grubs was tried on the larvae of the rhinoceros beetle. It was observed to paralyse *Oryctes* larvae by its sting but it has not laid any eggs on the larvae. Attempts to obtain *Scolia ruficornis* from Zanzibar were continued. The grubs of *Oxycetonia versicolar* were feeding on the eggs of *Oryctes rhinoceros.*

II. The Coconut Caterpillar, *Nephantis serinopa*, Meyr.

1. General: This pest continued to be active in coconut gardens situated along the sea coast and in littoral tracts. On the west coast it was present throughout the year. Its activity was at its highest during the dry months.

2. Biology: Studies on the biology of the pest were continued. It was observed that the duration of the larval period depended to a large extent on the availability of food. Generally the larval period was 45 days but when food was insufficient some of the larvae pupated within 28 days. The adults emerging out of these were reduced in size and short lived.

3. Insecticidal trials: Toxaphene, chlordane, parathion and endrin were tried against the larvae of *Nephantis serinopa* under field conditions. Toxaphene at a concentration of 0.2% produced 80% mortality in 120 hours, chlordane 0.25% produced 60% mortality in 96 hours and parathion and endrin at [illegible] concentration gave 100% mortality within 24 hours. These trials are being repeated. The persistence of the toxicity of these insecticides during rainy days of the S. W. monsoon is also being tested.

Trials with the systemic insecticide "Systox" against the larvae of *Nephantis serinopa* were also in progress.

4. The residual effect of BHC and DDT spray on beneficial insects: Trials started in this connection with the eulophid parasite, *Trichospilus pupivora* showed that BHC lost all its toxicity in about 10 days after which period the parasites were able to parasitise the host pupae. In the case of DDT the toxic effect persisted up to five weeks. Studies are also in progress to find out the effect of spraying with 0.2% DDT on pollinating insects.

5. Population studies: To investigate the factors responsible for the fluctuation of pest population a heavily infested area in Purakad is kept under observation. Counts of the different stages of the pest and its parasites, environmental factors like temperature, humidity etc. are regularly being recorded.

6. Record of natural parasitism: Observation on the parasites of *Nephantis serinopa* occurring in nature at Ayiremthengu were recorded regularly throughout the year. The more common parasites found were the chalcid, eulophid, the elasmid, the bethylid and the braconid. Of these the chalcid was present throughout the year, the eulophid was generally seen from September–January of the succeeding year, the bethylid from September–May of the succeeding year, the elasmid from April–November and the braconid from January-April.

7. Biological control: The eulophid, bethylid, braconid and elasmid parasites were bred in the laboratory and supplied for liberation in the infested areas. During the period under report 105640 eulophid, 6600 bethylid, 480 chalcid, 815 elasmid and 1810 braconid parasites were supplied to coconut growers for the biological control of *Nephantis serinopa*. A species of bacterium producing red pigmentation was isolated from some dead larvae and infection experiments are in progress.

The life history and habits of the chalcid and eulophid parasites of *Nephantis serinopa* were under study during the year.

III. The Palm Weevil - *Rhynchophorus ferrugineus*, F.

1. **General:** This pest was reported to be active on coconuts in different parts of India. In Travancore - Cochin incidence of attack by the weevil was quite high in Shencottah taluk.

2. **Life history:** Life history studies were continued during the year. Search for new alternate hosts of the pest were also continued.

3. **Control:** It was found that coconut palms attacked by this pest could be saved by treatment with pyrithrins piperonyl butoxide combination provided the growing point was not destroyed by insect attack.

4. **Insecticidal trials:** Laboratory and field trials with chlordane and endrin were made against the larvae Preliminary trials have indicated that endrin also was effective. These experiments are being continued. The organic phosphorus insecticide parathion is also being tried against the pest.

IV. Cockchafer, *Leacopholis coneophora*, Burna.

1. **General:** The Cockchafer has been noticed to be spreading slowly to adjoining areas in Mavelikara and Thiruvella taluks in Travancore-Cochin.

2. **Life history:** The beetles which emerged "en-masse" during the third week of June 1953 started ovipositing by the middle of July and this continued till August. The incubation period of the eggs varied from two to three weeks. The hatching larvae continued to feed till April, 1954. The maximum damage to roots of coconut palms was done during the period February-April. Pupation was noticed in May after the pre-monsoon showers.

3. Insecticidal control trials: The experimental plots in which DDT and BHC had been applied to the soil to control the Cockchafer were kept under observation. It was seen that while DDT had little effect, the plots treated with BHC (dust 10%) at the rate of 1 cwt per acre were free from infestation. In the randomised replicated field experiment in which BHC and Chlordane were used as insecticides the treated plots also did not have any cockchafer grubs.

IV. Nematodes

A number of seedlings were found wilting in coconut nurseries. From such seedlings the nematode *Panagrolium rigidus* is generally obtained and experiments are in progress to investigate the role of this nematode in the wilting of coconut seedlings.

V. The Slug Caterpillar, *Contheyla rotunda*

This pest which appeared in epidemic form during the previous year in a small island in Ashtamudi lake near Quilon and against which spraying with BHC had been done remained under control during the period under report. Life history studies of *C rotunda* were continued. It was found that the period of its life cycle from laying of egg to emergence of the moth varied from 35 to 55 days. A hymenopterous parasite, probably *Stomatoceros sulcatiscuttelum* was observed to be parasiticing pupae in nature.

VI. Rats

Experiments with the rodenticide "Tomorin" were continued against rats. It was observed that Tomorin was effective only if used in sufficiently large quantities.

VII. Flying fox (Fruit eating bat).

The fruit eating bat *Pteropus edwardsei* was observed to be destroying a large number of nuts in some of the trees at this Station. Some observations on its habits etc. were made.

Programme of work for 1954-55.

I. *Oryctes rhinoceros:* General survey, economic importance and seasonal history of the pest in the important coconut growing States in India. Insecticidal trials, use of attractants, repellants etc. Biological control using the green muscardine fungus and possible parasites and predators

2. ***Nephantis serinopa:*** General survey, economic importance, seasonal history, biology and ecology of the pest. Investigations on insecticidal and biological control.

3. ***Rhynchophorus ferrugineus:*** General survey, economic importance, life history etc. of the pest. Insecticidal and biological control studies.

4. ***Leucopholis Coneophora:*** General survy, distribution, life history. seasonal history, and control trials.

5. **Miscellaneous pests:** Studies on the life history and control of the minor pests of coconuts.

II. PLANT PATHOLOGY

Work along the approved technical programme was continued.

A. Leaf disease

1. ***Fungicidal trials:*** The new fungicides tried were "Coppesan", "Wetcol", "Yellow cuprocide", "Cuprasano" dust, lemon grass oil 0.1% and DDT 0.2%. Four trees each in different categories of the disease are taken for treatment and spraying is conducted once every quarter. The trees are kept under observation.

2. ***Spraying with trace elements or micronutrients:*** Spraying with micronutrients was continued on 18 trees in block VIII. The spray was applied to the foliage at monthly intervals. The spary fluid contained the following micronutrients.

Zinc sulphate	0.75%
Copper	1.00%
Borax	0.50%
Ferrous sulphate	0.50%
Manganese sulphate	0.75%
Magnesium	0.75%

The solution was neutralised by calcium oxide. Detailed observations are being recorded. As a result of this treatment a general improvement in the condition of the trees is noticed.

Spraying trials done on four palms each with zinc sulphate plus lime and Ferrous sulphate 0.01% ammonium molybdate solution have not shown any material improvement.

3. *Antibiotic activity of Bacillus subtilis against the leaf disease fungi.*

Work in this connection was continued. It was found that the bacterium produced a thermostable toxic metabolic substance in organic liquid media which completely suppressed the growth of *Helminthosporium halodes* at 20% concentration in potato dextrose solution and partially inhibited its growth in Bovril solution. The application of a three days old bacterial filtrate prior to or at the time of inoculation of *H. halodes* on young coconut leaves gave protection against infection by the fungus. Further work in this connection is in progress.

B. **Root Disease**

1. Study of the microflora of soils: Soil samples collected from representative sandy and laterite areas both from diseased and healthy tracts were examined. An accumulation of fungi, bacteria and actinomycetes in the rhizosphere was seen in all the samples. The "rhizosphere effect" or rhizosphere—soil ratio was seen to decrease steadily with increasing depth in the laterite soils. In the case of sandy soils this was not consistent. With the incidence and progress of the disease a reduction in the rhizosphere flora was noticed. The application of farmyard manure to the soil increased the rhizosphere fungal population in diseased trees and decreased it in healthy ones. Lime was observed to inhibit rhizosphere fungi in diseased palms while it had no effect in the case of healthy trees. A combinatian of farmyard manure and lime resulted in the production of the maximum rhizosphere fungal population.

The effect of micronutrients on the rhizosphere fungal population was also examined. The micronutrients tried were boron, manganese, zinc, copper, molybdenum, iron and also magnesium. Four months after application it was noticed that these elements both individually and in combination increased the rhizosphere fungal population of healthy palms. Inhibitory effect was noticed in the case of diseased trees for iron, molybdenum and manganese. The combination of all the trace elements also had an inhibitory effect for such trees. Observations are being continued for confirmation.

2. Study of coconut roots: Comparative mycological examination of the roots of healthy palms of different ages and diseased ones in different stages of root disease was continued. It was seen that *Botryodiplodia theobromae* which is one of the organisms generally associated with the disease was of common occurrence in the roots of palms of all ages irrespective of their healthy or diseased condition. Isolations of roots of seedlings planted around heavily infected trees did not reveal the presence of any new root parasite other than those already obtained. Similar observations were recorded from roots induced to grow from infected trees into pits filled with sand. The possibility of one or more of the soil organisms existing in coconut roots as mycorrhiza is also being investigated.

3. ***Growth and survival in the soil of the fungi associated with the root disease:*** The effect of soil moisture on the growth and survival of the different fungi associated with the root disease of coconuts is being studied under laboratory conditions.

4. ***Study of indicator plants:*** Indicator plants like cowpea, green gram, black gram, horse gram, *Crotalaria striata, C. Juncea* etc. were grown in healthy and diseased areas. Periodical isolations were made from the roots of these plants. Here also no new fungi were obtained from the isolations.

5. ***Effect on healthy palms of the staling products of the fungi associated with the root disease:***

Staling products of the fungi are introduced into young healthy palms through the cut ends of roots once a month to find out whether any disease symptoms are produced on account of this. The trees are kept under observation. No disease symptoms have been noticed after four months of this treatment which is being continued.

6. ***Infection experiments:*** Inoculation experiments were continued on healthy coconut seedlings established in cement tubs. In one set of pots the soil was kept water logged while in another set it was adjusted to 20% soil moisture. The seedlings were inoculated with *B. theobromae, R. Solani, R. bataticola* and *Neocosmosphora vasinfecta.* The last named fungus was not able to infect coconut seedlings while in the case of the other three infection took place in seedlings the soil of which was kept water logged.

7. *Studies on the role of seednuts in carrying the disease from generation to generation* Coconut seedlings raised from mother palms in different stages of the disease have been planted in proper layout in block VII. They are being kept under observation for disease incidence, vigour of growth etc.

8. *The application of hormones against premature nut-fall and button shedding*: Spraying of hormones against button shedding and premature nut-fall was continued. The hormones used were Methoxone, Fernoxone, Phyomone and Planofix and out of these Methoxone and Fernoxone gave a higher percentage of retention and development of buttons. The concentrations of the different hormones used were as follows:-

Methoxone	40 p. p. m.
Fernoxone	160 p. p. m.
Phyomone	24 p. p. m.
Planofix	10 p. p. m.

9. *Manurial and spraying trials for the control of the root and leaf disease*: The manurial, cultural and spraying trials against the root and leaf diseases of coconuts were continued. Sunhemp was grown *in situ* and 200 lb. of this green manure along with 7 lb. of groundnut cake, 3 lb. of bonemeal and 2 lb. of muriate of potash per tree were applied to the soil in ring trenches taken around the base of palms. In addition to this in four experimental plots lime at the rate of 2 cwts. per acre and farmyard manure at 200 lb. per tree were given. The whole garden was dug up in September and small mounds of soil piled up according to local agricultural practice. The mounds were levelled in November. In May the garden was ploughed to sow green manure. During the period under report the palms were sprayed 6 times as per schedule given below.

August — Bordeaux mixture 1%
October — do
November — do
December-January — Bordeaux mixture plus ferrous sulphate and Zinc sulphate.
February-March — Mixture of micronutrients--borax, ammonium molybdate, manganese sulphate and magnesium sulphate.
April-May — Bordeaux mixture.

Detailed observational records are maintained and the experiment is being continued.

Virus Pathology

1. ***Symptomatology:*** A detailed study of variations in foliar symptoms was taken up. Apart from flaccidity of leaflets and yellowing, a top necrosis of the leaflets of newly emerging leaves was noticed. Detailed study of the root systems of trees in different stages of the disease is in progress to find out the extent to which the rotting of roots could be associated with foliar symptoms. For studying internal symptomatology microtome sections of healthy and diseased tissues are being taken and examined. This work is in progress.

2. ***Survey of insect population and virus diseases in coconut gardens:*** A survey of the fluctuation in population of different species of insects found on coconut was conducted during the year and 15 species of insects were collected. Of these 7 were found in fairly large numbers. Two of these, a lace wing bug (*Stephanitis* sp.) and a fulgorid were used for transmission trials. It was seen that the population of *Stephanitis* sp. dwindled during the period June to September while they were found in large numbers from October-March. The fulgorid was present in fairly large numbers from January to May while its numbers dwindled from June to December. These studies are being continued.

Yellow vein-mosaic symptoms were noticed on two weeds generally found growing in coconut gardens. Leaf curl symptoms have been noticed on *Hibiscus rosasinensis* and an *Aposcyanaceae*.

3. ***Virus transmission trials:*** To investigate whether the root disease of coconuts could be artificially transmitted to healthy plants the following transmission trials were done.

(a) **Inoculation of plant extracts:** Seven healthy palms belonging to 7-10 year old group, five palms in the 15-20 years age group and five three-year old seedlings were inoculated by the Carborundum method of Rawlins and Tompkins. The plants are kept under observation.

(b) **Pin-prick inoculation:** Eight healthy young palms in block V and five seedlings in block VII were inoculated by the pin-prick method. The palms are kept under observation. No disease symptoms have developed so far.

(c) **Transmission by grafting:**

1. *Petiole grafting:* Attempts were made to find out whether treatment with a hormone could induce union in petiole grafts. Petioles of 10 healthy seedlings were split and the split surfaces were treated with a weak solution of "Methoxone" after which they were brought together and kept in position by bandaging with country twine. The grafts were padded up with cotton-wool soaked in hormone solution and kept moist for 48 hours. After this period cotton wool soaked in water was used as padding material. No union could however be obtained in these trials. Wedge grafts made on potted seedlings also were unsuccessful.

2. *Root grafting:* A large number of root grafts at the root-tip region were made to find out whether grafts made in the meristematic region of roots could be successful. The following methods were tried: slit grafting, patch grafting, break grafting and wedge grafting. In none of these, permanent union between the stock and scion could be established.

Attempts at root grafting were made for purposes of disease transmission. Root-tip scions from diseased trees were wedgegrafted on the roots of healthy trees, the grafts bandaged and padded up with cotton-wool as before. Some of these grafts were kept covered with soil and watered regularly to keep up the humidity. Some were kept immersed in nutrient solution or glucose distilled water solution. An examination of the data obtained from these trials showed that (i) the period of contact between the stock and scion in a living condition was considerably increased when the grafts were kept immersed in nutrient solution. Some of the grafts remained fresh for 50-60 days. (ii) Within 15 days most of the grafts kept covered with soil got rotten. (iii) those immersed in distilled water lasted longer than those in (ii). The trees are all kept under observation.

(d) **Leaf insertion method:** Freshly cut leaf-bits from diseased trees were inserted into windows cut to size in the petioles of newly emerging leaves of healthy plants bandaged and padded with cotton-wool and kept moist. Under these conditions the inserted leaf-bits remained green for over 60 days from the date of insertion. Eight palms under this treatment are kept under observation; none of them has developed disease symptoms so far.

(e) **Sap transfusion method:** Transfusion of root sap b direct root connections from the roots of diseased trees to those healthy ones as described previously were continued. This ha been tried on eight pairs of trees which are kept under observation. No disease symptoms have developed.

(f) **Transmission through obligate plant parasites:** Prelim nary attempts to parasitise *Cassytha* sp. on potted coconut seedling were not successful, the vines dying away within a few days Further attempts in this connection are in progress.

(g) **Insect transmission trials:** Transmission trials a described in the previous report were continued with the following insects:–

1. ***Stephanitis* sp:** 10 healthy palms in block V were given 12 inoculations uniformly distributed throughout the year. Eight months after the first inoculation disease symptoms have been noticed on some of the inoculated palms. It may be mentioned here that these experiments were conducted in the open under field conditions and therefore the possibility of natural infection cannot be precluded. Transmission trials with *Stephanitis* sp. have been now repeated on a larger number of palms in different parts of this Station. The trees are kept under observation.

2. ***Fulgorid* sp.** Eight young palms in block V were inoculated 12 times using this species of insect. No disease symptoms have developed.

3. ***Rhinoceros beetle:*** This pest of coconuts has also been included in the list of insects for transmission trials. Seven inoculations each have so far been given on 5 young palms. The plants are kept under observation.

(h) **Host range studies:** Plants belonging to different species of palmae have been inoculated with the sap of infected trees by the carborundum method and are kept under observation.

(i) **Curative trials:** 3000–7000 ccs. of 0.05% aqueous quinhydrone solution were administered to give coconut palms in an advanced stage of root disease by feeding through the cut ends of roots to find out whether this chemical had any curative property. Observations are being regularly recorded.

PROGRAMME OF WORK FOR 1954-55

The programme of work has been expanded to include new items suggested by the Reviewing Committee.

A. **Leaf disease**:

1. Continuation of trials with newer fungicides.
2. Study of the effect of spray application of micronutrients and urea by the carborundum half leaf method
3. Further studies on the antibiotic activity of *B. subtilis* against leaf disease fungi.
4. Studies on the comparative histology of leaf tissues of trees susceptible and resistant to leaf disease.
5. Sand culture experiments with deficiencies of N. P. K. and Ca in relation to infection.

B. **Root disease**:

1. Detailed study of the microflora of healthy and diseased coconut soils.
2. Continuation of infection experiments with the different root fungi in relation to soil moisture.
3. Study of the effect on healthy palms of staling products of fungi isolated from roots.
4. Study of the survival and development of root fungi in relation to soil moisture.
5. Isolation of organisms from inter-crops.
6. Investigation of mycorrhiza in both healthy and diseased roots.
7. Continuation of studies in connection with the role of seednuts in carrying the disease from generation to generation.
8. Hybridisation work for evolving disease resistant plants.
9. Continuation of cultural, manurial and spraying trials against the root and leaf disease.

C. ***Virus Pathology:***

I. Symptomatology—External and internal.

II. Survey of insect populations and virus diseases in coconut gardens.

III. Virus transmission trials by the well known virologica methods to be continued.

IV. Host range studies on different species of palmae an other monocot and dicot hosts common in coconut garden

V. Curative trials with viricidal chemicals.

VI. Spraying against possible insect vectors.

III. Plant Physiology

I. Diagnostic:

1. Study of symptoms: Detailed observations t assess the rate of retardation of the life activities of palms due t root disease were continued. From the data recorded for the pas 13 months it may be mentioned that palms which receive prope cultivation, manuring and spraying do not show conspicuou slackening in the production of leaves, spadices and flowers.

2. Root sap studies: Study of the root sap collected from different trees and different roots in the same tree were continued. The quantity of sap pumped up by a diseased root was much less than that of a healthy root. During the dry hot seasons very little sap was pumped up by the roots. Examination of sap collected from different roots for pH showed that the pH of the sap depended more on the condition of the individual root than the condition of the tree. The pH of sap from a healthy root was acidic while that from a diseased root was neutral or alkaline. Sap from healthy and diseased trees was chemically analysed for Ca, Mg, P, K and Fe. Preliminary results indicated a higher percentage of phosphorus in the sap from healthy trees.

In order to find out whether there is any correlation between the rate of exudation of sap and the stage of infection as suggested by the Reviewing Committee, 24 trees have been selected for intensive studies. Out of these 6 are healthy and the remainder are in different stages of disease intensity. A one-eighth sector of the roots of these trees is exposed layer by layer and all the roots excepting the dead ones are connected for sap under sterile conditions. These connections are maintained for 10 days and sap is collected and examined. The following particulars are recorded for each root.

1. Colour and external appearance.
2. Estimated age.

3. Thickness in inches
4. Colour and condition of the cortex.
5. Colour and condition of the stele.
6. Rootlets and breathing pores.
7. Quantity of sap collected every day.
8. Its colour, odour and pH.
9. Daily drift, if any, in pH etc.

The sap from diseased trees is being examined for micro-organisms to study their relation, if any, to the disease. The crude sap will also be utilised for introduction into healthy plants as suggested by the Reviewing Committee.

3. *Anatomical studies:* These studies as reported previously were continued. Structure of healthy matured roots both at the growing points and matured regions was studied. The cross section of matured stele was about 6.2 sq. mm. Half of this area was occupied by xylem vessels alone. The meta xylem of a mature root measures about 0.3 m. m. x 0.3 m. m. In the young growing regions, xylem vessels were few in number and narrow in size. The vessels become more prominent only when the hypodermis developes into a thick hard layer. Further work in this connection is in progress.

4. *Study of coconut root system:* This work was continued and observations on the structure and development of roots of coconut seedlings up to one year were recorded during the year.

II. Curative:

1. *Trace element (micronutrient) manurial experiment:* The manurial experiment to study the response of coconut palms in different stages of root and leaf diseases to the application of micronutrients in the soil, both singly and in specific combinations was commenced during the period under report. The nature, dosage etc. of the micronutrients are given below.

1. Boron	—	0.057 lbs.	as $Na_2B_4O_7$.
2. Copper	—	0.128 ,,	as $CuSO_4$.
3. Manganese	—	0.123 ,,	as $MnSO_4$.
4. Iron	—	0.100 ,,	as $FeSO_4$.
5. Molybdenum	—	1 gm	as Ammonium molybdate
6. Zinc	—	0.113 lbs.	as $InSo_4$.
7. Magnesium	—	0.100 ,,	as $MgSo_4$.

Treatment combinations.

1.	No treatment		1
2.	One element at a time		7
3.	Two ,,	,,	21
4.	Three ,,	,,	35
5.	Four ,,	,,	35
6.	Five ,,	,,	21
7.	Six ,,	,,	7
8.	Seven ,,	,,	1
			128

Layout — 27 confounded design.

Before the application of micronutrients, lime at the rate of 2 cwts. per acre had been applied broadcast to the soil. This was turned in with the light plough and green manure seeds sunnhemp were sown in May. The crop grew well and came to flower in July when it was uprooted, chopped up and the green matter was applied uniformly to the soil. The quantity of green manure applied per acre exceeds 6000 lbs. In addition to this 0.75 lb. of nitrogen as groundnut cake, 0.75 lbs. of phosphoric acid as bone meal and 1.5 lb. of potash as sulphate of potash per tree was also applied broadcast and worked into the soil with mammotty. The micronutrients were applied in September in ring trenches taken around the base of the trees. Detailed observations like the date of emergence of the leaf, date of opening of spathe, development of buttons, number of spikes in each inflorescence, date of drying of leaf, length of the leaf, length of petiole, number of leaflets, length and width of the longest leaflet in a leaf, size of the leaf base etc. are regularly being recorded.

In order to obtain information on the response of the trees to micronutrients applied as spray to the foliage, eight selected combinations are sprayed to six trees each four times a year. The usual observational records are maintained.

2. ***Injection experiments:*** (a) As stated previously a method for injecting fluids into coconut palms through the cut ends of roots was standardised. Using the method the following combinations of micronutrients were introduced into diseased trees.

T1 — $MgSo_4$ (2.50 gms.) $CuSo_4$ (1.25 gms.) $FeSo_4$ (1.25 gms.)
T2 — T1 + $MuSo_4$ (1.25 gms.)

T3 – T2 + $Na_2B_4O_7$ (1.25 gms.)
T4 – T3 + Ammonium molybdate (Trace)
T5 – T4 + $ZnSo_4$ (1.25 gms.)
T6 – T5 + $MgSo_4$ (1.25 gms.)
T7 – $CuSo_4$ (0.525 gms.)
T8 – $FeSo_4$ (0.625 gms.)

During the period under report two rounds of injections were done. Detailed observations on the pre-treatment conditions of the trees have been recorded. The trees are kept under observation.

(b) Micronutrients as organic salts known as "Chelates" have also been introduced into another set of diseased trees. Chelates of iron, manganese, copper and zinc have been administered in this manner. The concentration used was 0.2%. The trees are kept under observation.

(c) **Administering antibiotics and chemotherapeutants:** The effect of penicillin on diseased trees was tried. 27.5 lakhs international units of penicillin per tree were introduced into four diseased palms which are kept under observation. No appreciable changes have been noticed so far. On another set of trees a chemotherapeutant manufactured by C R A G Agricultural Chemicals, U. S. A. and known as No. 1182 F. was administered. The concentration of the chemical was 0.2%. These trees also are kept under observation.

III. Miscellaneous:

1. Study of deficiency symptoms in seedlings: As suggested by the Reviewing Committee a scheme for the study of deficiency symptoms with reference to N, P, K and Ca has been drawn up. Seedlings for this purpose are being raised and other preliminaries for this work have been taken up.

2. Disease transmission through pollen: In order to find out whether the root disease of coconut could be transmitted through pollen, artificial cross pollination between healthy mother and diseased male parents were made. 275 hybrid nuts thus obtained have been put in the nursery. They will be planted out later on and kept under observation.

3. Production of aerial roots: Production of root from the aerial stem portions of coconut palms has been induced in three palms by the layering and boxing method described earlier. The method is being tried on more trees for nutritional trials as suggested by the Reviewing Committee.

Programme of work for 1954-55.

The following items of work will be continued:

1. Study of the morphological symptoms of the root diseased and leaf diseased palms.
2. Root sap studies.
3. Anatomical studies.
4. Micronutrient manurial experiments.
5. Injection trials with organic and inorganic micronutrients, macronutrients, chemotherapeutants, antibiotics, some other stimulants etc.
6. Study of deficiency symptoms in seedlings.
7. Study of root development in coconut.
8. Inducing aerial roots for curative trials.
9. Effect of N, P, K and Ca on incidence of leaf disease.

IV. Chemistry

Work along the approved technical programme was continued. Advisory work also was undertaken whenever advice was sought for by interested coconut growers.

I. Collection of comparative analytical data of soils from diseased and healthy areas.

(a) Deep soil survey: This includes the study of soil profile, chemical analysis, mechanical analysis and base exchange studies. During the period under report 22 soil samples from 12 different sites were examined, thus bringing the total under this item to 105 soil samples from 82 sites. As a result of these studies the following general conclusions could be drawn:-

1. As compared to healthy areas the soils from diseased areas were lower in available potash content, lime and exchangeable calcium.

2. The pH of soils of diseased areas was distinctly lower than that of healthy tracts.
3. The total Fe_2O_3 content was lower in diseased areas than in the healthy.
4. The total exchangeable bases were higher in healthy soils
5. The exchangeable hydrogen was higher in diseased areas than in healthy areas.
6. The percentage of base saturation was lower in diseased areas. Further work in this connection is being continued for confirmation.

(b) Soil mapping of the Central Coconut Research Station, Kayangulam: Out of the 420 soil samples collected earlier from this Station to get a picture of the premanurial nutrient status, 42 samples have been analysed so far. This work is in progress.

II. Tissue analysis:

In order to standardise a technique for collecting representative leaf samples for analytical purposes 245 samples of leaf drawn from different trees were examined for their moisture and chlorophyll contents and 126 mid rib samples for moisture and phosphoric acid contents. As a result of this analysis it is seen that in any given coconut palm if 'n' represents the total number of leaves present, then the leaf with the number $\frac{n}{2}+1$ from the topmost opened leaf would represent the typical leaf sample of the tree. Again on this leaf any leaflet between the 40th and 50th leaflets from the petiole end would be a representative leaflet sample.

Eighteen leaf samples drawn in this manner from diseased coconut palms were analysed for major plant food ingredients like CaO, MgO, N, P_2O_5 and K_2O and micronutrients like iron, manganese, copper etc.

Sunnhemp as a possible indicator plant for potash deficiency in sandy soils:

The chemical analysis of plant tissue and soils where stunting of growth was noticed in the sunnhemp crop sown as green manure was continued. The stunted plants showed very low potash content and proportionately high contents of magnesium and manganese, when compared with normal healthy plants

Examination of the soil revealed that wherever stunting of plan was noticed the soils of these tracts were deficient in potash an lime. In a preliminary manurial experiment tried in this connectio the best growth of sunnhemp and its maximum yield were obtaine from plots receiving both lime and potash. Application of lim and potash gave a threefold increase in the yield of green matter These experiments are being repeated for confirmation.

III. Seasonal yellowing of coconut leaves:

With the onset of the S. W. monsoon the seasonal yellowin of the leaves of coconut palms was again noticed. The observation as described in previous reports were continued. Thes confirmed the earlier findings that this yellowing was associate with the low pH of the ascending sub-soil water. It was seen tha liming of the soil lessened this yellowing of foliage. The possibility of the yellowing being caused by the leaching away of available nutrients from the soil with the sudden onset of the heavy monsoon rains is also under investigation.

IV. Sudden wilting of coconut palms at Thottappally:

Work on this aspect in the Spillway area in Thottapally as described in the previous year's report was continued. From the results obtained it may be concluded that the cause of wilting was due to root damage and consequent dessication of the aerial parts of the palm. Damage to roots appears to have been caused by:-

(a) high acidity of the dredged sub-soil and sub-soil water.

(b the presence in the dredged material of readily oxidisable material like sulphides, ferrous iron etc.

(c the presence in it of phytocidal materials like soluble aluminium and soluble ferrous iron.

(d) the presence of mineral acids in the sub-soil, and

(e) the complete anaerobic condition in the root rhizosphere.

These point to the cause of the wilting to be physiological in nature.

V. Soil ameliorants:

Laboratory examination of 10 samples of press mud obtained from sugar factories has shown that this material contains both macro and micronutrients required for plant growth in more or less readily available forms. Its organic matter content and base exchange capacity indicate that it would serve to improve the tilth of the soil, expedite processes in the soil vital to plant growth and act as a good soil ameliorant. As a source of potash, however, press mud does not compare favourably with wood ash and other potassic fertilisers. The application of press mud to selected trees in this Station was continued. The trees are kept under observation.

VI. Manurial trials:

(1) In order to verify the tentative conclusions arrived at as a result of the comparative soil analysis of healthy and diseased areas that the latter were deficient in lime and potash, 25 trees in different stages of the disease were given in addition to the usual manures an extra dose of 3 lbs. of lime and 50 lbs. of wood ash per tree. Another set of 25 comparable trees were kept as controls. Leaf samples from all the 50 trees have been analysed for CaO and K_2O. Twenty soil samples were examined for pH, lime, K_2O (total and available). Detailed observational records of these trees are being maintained.

(2) A preliminary field trial to study the comparative response of coconuts to nitrogen supplied as Chilean nitrate, groundnut cake and ammonium sulphate respectively was started during the year under report. 200 coconut seedlings were selected for this. Each seedling received a basal dressing of 0.25 lb. of P_2O_5 as bone meal, 0.5 lb of K_2O as muriate of potash plus 0.33 lb. of nitrogen from one of the three sources of nitrogen noted above. Detailed observational notes are being recorded.

VII. Advisory:

In this connection the undermentioned samples were analysed and necessary advice and help rendered to coconut growers.

Soil samples—41, silt samples—6, Manure samples—10,
Water samples—6, Leaf samples—5.

PROGRAMME OF WORK FOR 1954-55

1. Continuation of deep soil survey of healthy and disease areas.
2. Analysis of plant tissues
3. Continuation of studies on foliar yellowing.
4. Soil moisture studies including studies on the wiltin coefficient and soil temperature.
5. Spectrographic examination of soils from healthy an diseased areas for rare earths, strontium, cadmium etc c recommended by the Reviewing Committee.
6. Studies of indicator plants for diagnosis of deficiencies i the soil.
7. Physiological wilting of palms.
8. Field trials.

PUBLICATIONS

During the year under report eight papers based on th results of research conducted in this institution were sent up fo publication in The Indian Coconut Journal.,

Central Coconut Research Station,

Kayangulam, 19th July, 1954.

(Sd.)

Joint Director

APPENDIX IV

SECRETARY'S NOTE

Subject No. 12 — Procedure to regulate the utilisation by Research Workers of data collected in the Research Stations of the Committee or in Schemes financed by the Committee for obtaining higher degrees or diplomas.

The Indian Council of Agricultural Research has laid down a revised procedure for utilisation by Research Workers of data collected in the Council's schemes for obtaining higher degrees or diplomas. A copy of their letter describing the procedure forwarded to the Committee by the Government of India is attached to this note.

The Committee has not so far laid down any procedure to regulate the utilisation by Research Workers employed in its Research Stations or in schemes financed by it of experimental data for obtaining higher degrees or diplomas. It would, however, be desirable to lay down a definite procedure in the matter. The following rules of procedure drafted on the lines of those adopted by the Indian Council of Agricultural Research may perhaps be prescribed for the purpose:

1. Every incentive should be given to young workers for obtaining higher degrees through their research work, provided there is no deviation from the programme of work approved for them.

2. Prior approval of the Committee should be obtained before permission is granted to a research worker to utilise the data collected by him during his work in the Committee's Research Stations or in any scheme financed by the Committee, for submitting a thesis for higher degrees.

3. In order to avoid rival claims in cases where several research workers work, a certificate should be furnished to the Committee by the officer-in-charge of the Research Station or of the scheme, as the case may be, to the effect that the worker who is proposing to utilise the data is the person best fitted to do so.

4. Before a thesis is submitted to a University or Institution for the award of a degree or diploma, either the thesis or a synopsis thereof (with an appendix of the unpublished material) should, in the first instance, be submitted to the

Committee with a certificate from the officer-in-charge of th Research Station or of the scheme, regarding the suitability of th thesis for the purpose of obtaining a higher degree or diploma.

5. No thesis or synopsis should be submitted by research worker to a University or Institution before the necessar permission therefor has been granted by the Committee.

6. Due acknowledgement of the help rendered by the Committee in carrying out the investigations should be made in the thesis by the Research Workers.

7. The Committee will retain prior right to publish the results of researches undertaken under its aegis in its own journals, before they are published elsewhere

8. The Officer who supervises the work of a research Station under the Committee or a scheme financed by the Committee cannot claim the research work as his own or utilise the results thereof for obtaining higher degrees or diplomas.

The Committee may now decide whether they approve of the rules of procedure suggested above.

The Subject will first be considered by the Agricultural Research Sub-Committee, which will report to the full Committee.

Copy of letter No. F. 21(1)/54-G dated 8-6-1954 from the
Secretary, Indian Council of Agricultural Research,
New Delhi, to the Secretary, Indian Central
Coconut Committee, Ernakulam.

Subject: *Procedure for the utilisation of the data collected in the Indian Council of Agricultural Research Schemes by Research Workers for obtaining higher degrees or diplomas.*

I am directed to refer to this office circular letter No. F. 23(1)/49-Gl. dated the 17th June, 1949 & No. F. 9 (3)/52-Ext. dated the 6th May, 1952 (copies enclosed for ready reference) and to say that the procedure outlined therein for the utilisation of the data collected in the scheme financed by the Indian Council of Agricultural Research by Research Workers for obtaining higher degrees has been modified, as recommended by the Board of

Research at it's meeting held in December, 1953. The revised procedure is as follows:

Procedure laid down by the Indian Council of Agricultural Research for the utilisation of data collected in schemes financed by it by research workers for obtaining higher degrees or diplomas.

1. Every incentive should be given to young workers for obtaining higher degrees through their research work, provided there is no deviation from the programme of work approved for them.

2. Prior approval of the Council should be obtained before permission is granted to a research worker to utilise the data collected by him during his work in a scheme for submitting a thesis for higher degrees.

3. In order to avoid rival claims in the case of schemes wherein several research workers work, as a group, a certificate should be furnished to the Council by the officer in charge of the scheme to the effect that the worker who is proposing to utilise the data is the best one to do so from amongst them.

4. Before a thesis is submitted to a University or Institution for the award of a degree or diploma, either the thesis or a synopsis thereof (with an appendix of the unpublished material) should, in the first instance, be submitted to the Council with a certificate from the officer in charge of the scheme regarding the suitability of the thesis for the purpose of obtaining a higher degree or diploma.

5. No thesis or synopsis should be submitted by a research worker to a University or Institution before the necessary permission therefor has been granted by the Council.

6. Due acknowledgement of the help rendered by the Council in carrying out the investigations should be made in the thesis by the research workers.

7. The Council will retain the prior right to publish the results of researches undertaken under its aegis in its own journals, before they are published elsewhere.

8. The officer who supervises a scheme cannot claim the research work as his own or utilise the results thereof for obtaining higher degrees or diplomas.

9. The above revised procedure may kindly be brought afresh to the notice of all research workers employed in the schemes financed by the Council in your State/Institute/University for their information and future guidance.

The receipt of this letter may kindly be acknowledged.

APPENDIX V

SECRETARY'S NOTE

Subject No. 18 — Scheme for the establishment of a coconut nursery at Wadakkancherry, Travancore-Cochin State.

The Travancore-Cochin Government have, with their letter No.A 3-2394/54/Fd.D dated the 17th June, 1954, forwarded for the Committee's acceptance a 5-year scheme (copy attached) for the establishment of a coconut nursery at Wadakkancherry in Talapilly Taluk of the State. The following comments are offered on the scheme:—

1) The nursery is proposed to be put in charge of the Taluk Fieldman who will work under the control and guidance of the Agricultural Inspector and the District Agricultural Officer, Trichur. Two servants on Rs. 20/- per mensem are proposed to be employed to assist the Fieldman. It would, however, appear from the statement of expenditure that the Fieldman will be only in part-time charge of the nursery which would not at all be in the interests of the nursery. It is essential that the Fieldman should be in whole-time charge of the nursery.

2) The annual production target of the nursery is of the order of 3,000 selected seedlings for which 4,000 seednuts are proposed to be purchased every year.

3) The provisions made under the different heads of expenditure are reasonable and may be allowed. A sum of Rs. 200/- per annum has been provided for transport of seedlings. The members may recall that the Committee at its 18th meeting (October 1953) had permitted the Director of Agriculture, Trivandrum, to arrange to transport coconut seedlings from the existing nurseries in the State to Taluk centres where there were demands for them, charging for it a fee of one anna per seedling within 10 miles of the nursery and two annas beyond 10 miles, the

extra expenditure, if any, incurred on transport being shared equally by the State Government and the Committee. (Vide Subject No. 19 of the proceedings of the 18th meeting). The present provision of Rs. 200/- may be allowed if it is meant to meet the extra cost of transport of seedlings after levying the fee for transport at the rates mentioned above.

4) Provision has been made for the purchase of seednuts in the 5th year of the scheme and also for sharing the receipts from the sale of seedlings raised from the 5th year nursery.

5) The total recurring expenditure on the scheme is estimated at Rs. 16,540/- and the receipts at Rs. 8,000/-. The expenditure and the receipts are proposed to be shared between the State Government and the Committee in the usual proportions of 50:50 and 60:40 respectively. The Committee's share of net expenditure on the scheme is of the order of Rs. 5,070/- for 5 years or Rs. 1,014/- per year.

The Committee may now decide whether (1) the scheme may be approved, (2) if so, whether they should not request the Director of Agriculture, Trivandrum to put the nursery under the charge of a whole-time Fieldman and (3) whether they agree to meet a net expenditure of Rs. 5,070/- for a period of 5 years.

The subject may first be considered by the Agricultural Research Sub-Committee which will report to the full Committee.

Copy of letter No. A. 3-2394/54/Fd. D. dated 17th June, 1954 from the Secretary to Government of Travancore-Cochin, Government Secretariat, Food Department, Agriculture 'A' Section, Trivandrum, to the Secretary, Indian Central Coconut Committee, Ernakulam.

Subject: *Scheme for opening a coconut nursery at Wadakkancherry:*

I am directed to forward herewith a scheme for the opening of a coconut nursery at Wadakkancherry for your acceptance.

Scheme for opening a Coconut Nursery at Wadakkancherry

The coconut nursery will be run by the Agricultural Inspector, Talapilly under the guidance and control of the District Agricultural Officer, Trichur, with the Taluk Fieldman directly in charge of the nursery as is the case of the Nursery Assistant, with two servants to assist him for the collection of seed coconuts, preparing beds, sowing, irrigating etc.

	Rs.	As.	Ps.
Establishment charges:			
Travelling allowance for the Fieldman and the Inspector	150	0	0
Contingencies — Recurring:			
Pay for 2 servants at Rs. 20 per month	480	0	0
Dearness allowance for -do- at Rs. 22 -do-	528	0	0
Cost of 4000 seed coconuts at Rs. 225 per 1000	900	0	0
Harvesting, packing and transport charges at Rs. 40 per 1000 seed coconuts	160	0	0
Gunnies for packing and transporting	80	0	0
Preparing nursery beds, carting sand, forming bunds at Rs. 65 per 1000	260	0	0
Planting nuts, weeding, spraying etc.	150	0	0
Fencing the nursery	100	0	0
Irrigation charges	100	0	0
Other miscellaneous charges—purchase of mudpots etc.	100	0	0
Temporary sheds etc.	100	0	0
Transport of seedlings	200	0	0
Total	3,158	0	0
Grant total	3,308	0	0
Total expenditure for 5 years	16,540	0	0
Expenditure to be shared by the Indian Central Coconut Committee and the State Government on 50:50 basis			
Share of the Committee.	8270	0	0
Share of the State Government	8270	0	0

Statement of Receipts

By sale of 3000 quality seedlings @ 0-8-0 each	1500	0	0
By sale of ungerminated seednuts etc.	100	0	0
Total	1,600	0	0
Total anticipated receipts for 5 years	8,000	0	0
Receipts to be shared by the Committee and the State Government on 40 : 60 basis			
Share of the Committee	3200	0	0
Share of the Government	4800	0	0

1. This scheme is to run for 5 years.
2. The expenditure and receipts are to be shared by the Committee and the State Government in the ratio of 50 : 50 and 40 : 60 respectively.
3. The receipts from seedlings produced during the period of the scheme is also to be shared between the Committee and the State Government.
4. The target of planting of seednuts can be increased to 6000 according to the demand for seedlings.
5. The Fieldman selected may be given a month's training at the Coconut Research Station, Kasaragod.

APPENDIX VI

SECRETARY'S NOTE

Subject No. 32 — Proceedings of the Special Sub-Committee set up to examine the question of having a unified scheme in Travancore-Cochin State for spraying coconut palms to control the leaf disease.

The Committee had, at its last meeting (April 1954) considered a scheme forwarded by the Travancore-Cochin Government for spraying coconut palms to control the leaf disease and organising a Coconut Development Section in the State Department of Agriculture for this and other purposes and set up a special sub-Committee consisting of the Director of Agriculture and the Registrar of Co-operative Societies, Travancore-Cochin, and the Joint Director, Central Coconut Research Station, Kayangulam, to go into the question and submit a unified scheme for the purpose for the Committee's consideration. (Vide Subject No. 59 of the proceedings of the 19th meeting).

The special sub-Committee met in Trivandrum on the 12th July, 1954 and approved of a 5-year scheme for the purpose. A copy of the proceedings of the meeting is attached to this note for the Committee's information. The Chief recommendations of the special sub-Committee are the following —

1) Spraying work should be undertaken on a unified basis in all the 22 disease-affected taluks in the State by the Agriculture Department and a Coconut Development [illegible]

should be formed for the purpose and for undertaking other related work.

2) The Co-operative Unions which are doing spraying work at present should discontinue their work when the unified scheme is put into operation. The spraying scheme under the Joint Director, Central Coconut Research Station, Kayangulam, may however, continue to attend to emergent and extra spraying work, such as the fertiliser demonstration plots organised by Messrs. Parry and Co.

3) Twenty-one spraying units, each having 4 sprayers, under a Supervisor, should be formed for undertaking the spraying work.

4) The spraying charges should be fixed at 1 anna per tree per spraying as against the present rate of 2 annas.

5) A Coconut Development Officer in the scale of Rs. 350-450 should be appointed to be in charge of the Coconut Development Section. He may be given the services of an Accountant, Head Clerk, one Clerk, one Typist and 2 Peons.

6) The gross expenditure on the scheme estimated at Rs. 5,49,000/- for 5 years should be shared equally by the State Government and the Committee. The funds required for the scheme may be made available from under the I and II 5-year Plans.

7) Receipts from the scheme are estimated at Rs. 43,750, which will be shared in the usual proportion.

8) The post of Coconut Propaganda Officer should continue for extension service work.

The Director of Agriculture, Trivandrum, has been requested to forward the scheme through the State Government when the subject may be considered by the Committee and a decision taken in the matter.

The subject may first be considered by the Agricultural Research Sub-Committee, which will report to the full Committee.

The report of the Sub-Committee appointed by the ndian Central Coconut Committee during its 19th meeting to consider the unification of spraying work in the Travancore-Cochin State for the control of coconut diseases and formation of a Coconut Development Section.

The Sub-Committee met in the Office of the Director of Agriculture, Trivandrum on 12-7-1954. The members present were:-

(1) Sri C. Thomas, Director of Agriculture, Travancore-Cochin State.
(2) Sri Gopalan Nair, Registrar of Co-operative Societies.
(3) Sri K. P. V. Menon, Joint Director, Central Coconut Research Station, Kayangulam.
(4) K. Gopalan, Secretary, Indian Central Coconut Committee, Ernakulam.

Sri P. M. Kochappa Menon, Coconut Propaganda Officer also attended the meeting.

The Sub-Committee examined the subjects in detail and submitted the following report:-

1. Necessity to undertake large-scale spraying operations for the control of coconut diseases:

The situation brought about by the incidence of the leaf-rot and root disease on coconut in the Travancore-Cochin State needs very serious consideration. Among the coconut growing States in India, the incidence of these two diseases is found only in the Travancore-Cochin State. These diseases by nature have a spreading habit and have spread so far to 22 important coconut growing taluks of the State. 15 of these taluks have been affected very heavily and 7 only lightly. The seven lightly infected taluks are those that have received infection comparatively in recent years and there is every probability of the infection extending to the adjoining disease-free taluks.

The annual loss in yield resulting from the infection is on a very moderate estimate 13 crores of coconuts valued at Rs. 2 (two) crores at the current rates. This has to be considered as a serious loss not only for the Travancore-Cochin but for India as a whole, in as much as, this State is the premier coconut growing area in India, commanding 44% of India's extent under coconut cultivation and as India depends on this State largely for the internal production of coconut oil. It is, therefore, in the interest as much of India as of the State to stem the advance of the diseases and to treat and renovate the infected areas. A list showing the taluk-war infection of the diseases, level of infection and the losses sustained is appended herewith. (vide Statement-I)

Spraying the coconut trees in the infected areas with a copper fungicide is the only known measure of control at present. The spraying has been found effective not only for the control of the leaf-rot disease but also for successful arresting of the nut fall which is usually associated with the incidence of the root disease. As the success of the work largely depends on the thoroughness with which the work is pursued and the compactness of areas covered, it is necessary that the spraying operations should be carried out on a much larger scale than what is accomplished at present.

2. *Unification of the spraying work under a single agency.*

For better co-ordination of work and for more efficient control, the work proposed should be undertaken by one single agency and this agency should be the Agricultural Department of the State. A separate coconut development section competent to deal with the situation should be formed within the Agricultural Department for the purpose.

3. *Target.*

The spraying work should be started in all the 22 infected taluks of the State and an annual target of 7 lakhs of sprayings should be aimed at. This target will be achieved by employing 21 spraying units (each unit consisting of 4 sprayers under the charge of a supervisor as follows:

District	No. of taluks Inspected	No. of spraying units to be employed.	Remarks
Trivandrum	2 (Chirayinkil & Nedumangad)	2	North Parur and Kunnathunad taluks being only lightly infected will be clubbed together and will be provided only one spraying unit.
Quilon	11 (All taluks except Shencottah)	11	
Kottayam	6 (All taluks except Deviculam & Peermade)	6	
Trichur	3 (Cochin Kanayannur, N. Parur & Kunnathunad)	2	

The target fixed provides large scale spraying operations throughout the entire infected area and it is 7 times the target fixed for the existing spraying units of the Indian Central Coconut Committee.

4. *Spraying fee.*

The spraying fee to be charged per tree for spraying should only be 1 anna. It is absolutely necessary to limit the spraying fee to one anna in order to secure a ready passage for the work and the target and in order to make it acceptable for the poor and rich alike all over the infected areas. It is also essential to achieve compactness of the areas covered. Compactness for the areas covered and achievement of such a large target proposed cannot be aimed at, if the scheme is run on a self-sufficiency basis by levying the existing spraying fee of 2 annas. It seems that the Indian Central Arecanut Committee have sanctioned the spraying of arecanut trees free of charge.

5. *The need for formation of a separate coconut development section.*

In view of the importance of coconut to the State as well as to the whole of India, in view of the peculiar problems for the State and in view of the enormous work and responsibilities involved in the execution of the spraying scheme, it is absolutely necessary to have a separate Coconut Development Section within the Agricultural Department of the State to be in charge of all coconut development works. The existing District Agricultural staff cannot afford to pay concentrated and adequate attention to these special items of work of such big magnitudes.

A Coconut Development Officer will be appointed for the State to be in charge of the Coconut Development Section. He will be in charge of

i) The spraying scheme.
ii) All the Regional Research Stations (3) and all the Coconut Nurseries (12) of the State.
iii) Organisation of coconut crop competition.
iv) Organisation of coconut demonstration plots.
v) Distribution of green manure seeds and manures such as ammonium sulphate and muriate of potash specially required for coconut manuring.
vi) Any other items of work connected with the coconut development.

It may be mentioned in this connection that there are already Coconut Development Officers for West Bengal and Andamans on 250-750 grade and that it has been proposed in the 2nd Five Year Plan to have a Coconut Development Officer for each of the States having 1 lakh and more acres under coconut cultivation. It is, therefore, only in fitness of things that a Coconut Development Officer is appointed for the State at the earliest possible date.

Pay of Coconut Development Officer: In due consideration of the important status held by the State in coconut cultivation in India and of the heavy responsibilities involved for the section and in due consideration of the prevalent grades in the State, the Committee feel that the Coconut Development Officer appointed for the State should have at least the grade of Rs. 350-450. He should be a senior officer of the Department with sufficient knowledge and experience in the line.

6. *Staff.*

Office Staff: The Coconut Development Officer should be given the following office staff:

One Accountant—Head clerk	on Rs. 80-120
One clerk	on Rs. 45-75
One typist	on Rs. 30-120
Two peons	on Rs. 20 each.

Field Staff: There must be 21 supervisors on 45-75. Each supervisor will be in charge of a spraying unit consisting of 4 sprayers. The supervisors to be appointed for the work will be holders of S. S. L. C. with agricultural training or special training in spraying work at the Central Coconut Research Station, Kayangulam and experience in coconut spraying work.

Normally these supervisors will be engaged in spraying work for a period of 8 months in a year from October to May and for the remaining period of 4 months, which are rainy months, they will be engaged in the distribution of the green manure seeds and manures required for coconut manuring and in the work of coconut demonstration.

7. *Travelling allowances.*

Unlike in routine works, a lot of touring work has to be undertaken for organising and supervising the spraying work and it is therefore quite necessary to have adequate provision under

T. A. The Coconut Development Officer must have at least an annual provision of Rs. 3,000/- under the head and each of the supervisors must be provided a monthly P. T. A. of Rs. 25/-.

8. *Equipment.*

The only item of expenditure coming under capital outlay is the purchase of sprayers. In all 84 sprayers and necessary accessories are required for the work. Of this, 28 sprayers will be available from the Indian Central Coconut Committee when the co-operative unions discontinue the work with the launching of the unified scheme and 12 sprayers will be forthcoming from the Plant Protection section of the Agricultural Department. There is thus necessity to purchase only 44 new sprayers.

9. *Launching and duration of the scheme.*

If possible, the scheme may be put into operation from the ensuing spraying season, i. e. October 1954 onwards. In a work of this kind the success of which depends greatly on the control effected over the aerial infection, consolidation of spraying operations in compact blocks for the purpose and on the ready adoption of systematic spraying by the people, tangible results cannot be expected within a short period. The scheme may, therefore, be run for the first instance for a continuous period of 5 years.

10. *Cost and Finance.*

The entire cost of the items involved for the scheme for a period of 5 years has been worked out and shown in the accompanying statement II. The total cost of the scheme for a period of 5 years comes to Rs. 5.49 lakhs. The total share of the Indian Central Coconut Committee and the Travancore-Cochin State on 50:50 basis comes to Rs. 2.745 lakhs each.

The total average expenditure per year of the scheme is Rs. 1,09,800/- the share of which for the Indian Central Coconut Committee and the Travancore-Cochin State on equal basis is Rs. 55,922/-.

An anticipated annual receipt of Rs. 48,750/- is also shown as fee collections from the 7 lakhs sprayings at 1 anna per spraying.

Funds required for the scheme may be made available from the 1st and 2nd Five-Year Plans.

11. There is still need for coconut propaganda in the State and the post of Coconut Propaganda Officer may, therefore, continue even after the formation of the Coconut Development Section.

STATEMENT I

INFECTION FROM COCONUT DISEASES IN TRAVANCORE-COCHIN STATE

Sl. No.	Intensity of infection	Name of Taluk	Coconut area in acres		%age of infected area	Lowering in yield in infected area in %age	Annual normal yield (nuts in lakhs)		The present annual yield in the infected area (nuts in lakhs)	Annual loss in yield caused by infection (nuts in lakhs)	Value of the loss in yield in lakhs of rupees (rate of coconut nut valued at Rs 15 per 100)	Annual loss in yield in terms of total yield %age
			Total	Infected			In the total area under disease free condition	In the infected area in the disease free condition				
1	2	3	4	5	6	7	8	9	10	11	12	13
1.		Cochin-Kanayannur	20000	8000	40	60	600	240	96	144	21.6	24
2.		Karunagappally	24390	9760	40	50	750	290	116	174	26.1	23.2
3.		Thiruvalla	43205	17280	40	50	864	346	173	173	25.9	20
4.		Changanacherry	24155	9680	40	60	484	194	77	117	17.5	24
5.		Karthikapally	16454	4950	30	40	495	148	59	89	13.3	17.7
6.		Mavelikkara	19100	5730	30	60	573	172	103	69	10.3	12
7.		Meenachil	31860	9570	30	60	637	191	114	77	11.5	12
8.		Kottayam	30385	7600	25	50	608	152	76	76	11.4	12.5
9.		Thodupuzha	25900	5180	20	40	518	104	41	63	9.4	12.1
10.		Pathanamthitta	22950	4600	20	40	460	92	36	56	8.4	12.1
11.		Pathanapuram	8979	1800	20	30	180	36	11	25	3.7	13.8
12.		Ambalapuzha	23804	4760	20	30	714	143	43	100	15	14
13.		Kottarakkara	32625	4905	15	25	652	90	24	74	10.9	11.3
14.		Kunnathur	10215	1021	10	25	204	20	5	15	2.2	7.3
15.		Vaikom	28715	2872	10	20	861	87	17	70	10.5	8.1
Total (I)			362737	97708						1322	197.7	
16.		Muvattupuzha	10240	510	5	10	205	10	9.00	1.00	0.15	0.48
17.		Kunnathunadu	1025	51	5	10	20.5	1.2	1.28	0.12	0.18	0.10
18.		Shertalai	35010	1750	5	10	1050	52.05	47.25	5.25	0.78	0.71
19.		Quilon	49896	1996	4	10	996	40	36.00	4.00	0.60	0.40
20.		Nedumangad	12120	121	1	10	242	2.4	1.16	0.24	0.036	0.99
21.		Parur	20689	205	1	10	413	4.1	3.69	0.41	0.061	0.99
22.		Chirayinkil	30101	150	0.5	10	903	4.5	4.05	0.45	0.067	0.49
Total (II)			159081	4783						11.47	1.874	
											(1.9)	
Total (I) & (II)				102491						1333.47	199.6	

STATEMENT II

Estimate of cost for a period of 5 years (Five-Year Scheme) for the Coconut Development Section.

Items.	1st Year	2nd Year	3rd Year	4th Year	5th Year	Total for 5 Years
Coconut Development Officer (350-450) Pay & D. A.	5040	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
OFFICE ESTABLISHMENT						
1 Accountant—Head Clerk on 80-5-120 Pay & D. A.	1284	1344	[illegible]	[illegible]	[illegible]	[illegible]
1 Clerk on 45—75 & 1 Typist on 30-120 Pay & D. A.	1668	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2 Peons on Rs. 20 each & D. A.	1008	1008	1008	1008	[illegible]	[illegible]
T. A. for the Development Officer	3000	3000	[illegible]	[illegible]	[illegible]	[illegible]
Office contingencies	2000	2000	2000	2000	[illegible]	[illegible]
Total (1)	14000	14444	14888	15332	15776	74440
Average cost per year	14888					
2. For the Unified Spraying Scheme—to conduct 7 lakhs sprayings per year in 22 Taluks—including the cost of Field Establishment.						
1. Field Establishment:—						
21 Supervisors on 45-75 Pay & D. A. Rs. 27	13144	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2. T. A. for the Supervisors Rs. 25 each per mensem	6300	6300	[illegible]	[illegible]	[illegible]	[illegible]
3. Cost of 44 additional sprayers to be purchased @ Rs. 200	8800	...	...	...	...	[illegible]
4. Cost of Fungicides Perenox 2 tons Rs. 6300 per ton	12600	12600	[illegible]	[illegible]	[illegible]	[illegible]
5. Labour charges to spray 7 lakhs of trees Rs. 3-8 for every 50 trees	49000	49000	[illegible]	[illegible]	[illegible]	[illegible]
6. Contingent charges for maintenance of sprayers, transport etc.	3000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total (2)	97844	92304	93504	94704	[illegible]	[illegible]
Average cost per year	94012					
Grand total (1) & (2)	111844	106748	[illegible]	[illegible]	[illegible]	[illegible]
Average expenditure per year 1 & 2	109800					
Expenditure to be borne by I. C. C. C. & T. C. State each on 50:50 basis	55922	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Do. Average cost (1) & (2)	54900					
Estimated receipt per year as fee collection from sprayings @ 1 anna per spraying from 7 lakhs sprayings	43750					

APPENDIX VII

SECRETARY'S NOTE

Subject No. 37 — Second Five-Year Plan—inclusion of schemes relating to coconut—reference from the Government of India.

At its 17th meeting the Committee set up an *ad hoc* sub-committee to recommend proposals for stepping up the production of coconut in India during a designated period. The sub-committee met in August, 1953 and came to the conclusion that we should aim at an increased target production of 30 per cent in the course of the five years. The sub-committee suggested various measures for attaining the objects. The Committee at its 18th meeting held in October, 1953 approved of the sub-committee's recommendations. As decided by the Committee, the sub-committee's recommendations were forwarded to the concerned State Governments for implementation.

In February, 1954 the Government of India informed the Committee that it had been decided to include coconut in the 2nd Five-Year Plan and asked for a draft outline of the proposals relating to coconut development programme for the period 1956-1961. A draft outline of the plan was accordingly prepared and sent to them on 2-4-1954. The outline scheme was discussed at an informal meeting of the President of the Committee and representatives of State Governments at the time of the last meeting of the Committee and the draft proposals prepared on the basis of the decisions of that meeting were forwarded to the Government of India on 26-4-1954, a copy of which is attached. In their letter No. F. 21-5/54-Com. I dated 11th June, 1954 the Government of India have stated that the necessity to develop the Central Coconut Research Stations at Kasaragod and Kayangulam was recognised but it was not considered necessary to convert them into National Research Institutes. It was, however, agreed that these Research Stations are to be better equipped (1) for carrying on research on breeding, cultivation and manuring etc. of coconut plantations and (2) for obtaining correct estimates of area and yield of coconut. It is proposed to have a statistical assessment under the Second Five-Year Plan. The expenditure under the above two schemes is to be incurred by the Centre. The cost of all the other schemes proposed is to be shared equally between the Central Government and the respective States. It was also agreed that the financing of the development of coconut cultivation in Andaman areas has also to be undertaken by the Centre.

It was also pointed out that with regard to all these commodities, the marketing aspect had to be emphasized and financial provision had to be made for building of ware-houses and godowns where the produce can be stored and on the basis of which credit could be made available to the cultivators. The importance of regulated markets and ware-houses has to be stressed under the Second Five-Year Plan.

The Government of India have asked the Committee to get the latter's draft Second Five-year Plan revised in the light of their above comments and send it to them with all the necessary details and the approval of the Committee.

Accordingly all the States where coconut schemes are now in operation and those where there are possibilities of development of coconut cultivation were requested to send detailed proposals relating to the coconut schemes to be included in the 2nd Five-Year Plan. Besides, the undersigned contacted the Directors of Agriculture and their officers and Registrars of Co-operative Societies of the important coconut growing States and held discussions with them with regard to the possible schemes that may be included in the 2nd Five-Year Plan.

The following tentative proposals are suggested as a basis for discussion:

I. Central Coconut Research Station, Kasaragod

On the basis of the proposals put up by the Director, Central Coconut Research Station, Kasaragod for the expansion of the work at his Station during the Second Five-Year Plan, the following suggestions which may be classified under three heads are made:

I. Provision of additional staff and facilities for the existing four Research Sections at the Station.

II. Provision of staff and facilities for new items of research work.

III. Other additional facilities required at the Station.

A. Additional staff and facilities for existing Research Sections.

It is proposed to upgrade the posts of Agronomist, Cyto-Anatomist and Analytical Chemist from the present Class II scale of Rs. 275-25-500-EB-30-800 to Class I Junior scale of Rs. 350-350-380-380-410-30-590-EB-30-770-EB-40-850.

The present sanctioned strength of the four Research Sections is as follows:

a) Botany and Breeding Section.

Head of Section: Director-cum-Coconut Specialist.
Staff: One Senior Research Assistant (Rs. 250-500) (vacant)
One Junior Research Assistant (Rs. 160-330)
Two Fieldmen (Rs. 55-130)

b) Agronomy Section.

One Agronomist
One Senior Research Assistant (vacant)
One Junior Research Assistant
Two Farm Assistants (Rs. 160-330)
Four Fieldmen
One Statistical Assistant (Rs. 80-220) (vacant)

c) Cytō-Anatomy Section.

One Cyto-Anatomist
One Senior Research Assistant (vacant)
One Junior Research Assistant
Two Fieldmen

d) Chemistry Section.

One Analytical Chemist
One Senior Research Assistant (vacant)
One Junior Research Assistant
Two Laboratory Assistants

The above-mentioned staff is proposed to be strengthened with the following additional staff:

a) Botany and Breeding Section.

One Coconut Botanist and Taxonomist (Rs. 275-800), One Junior Research Assistant and one Fieldman. The additional staff is required to help the Director who is in charge of this Section in his research work so that he may spend more time on advisory work such as offering his comments on various matters referred to him by the Committee, answering enquiries from growers, scrutinising material for publication in the "Bulletin" and "The Indian Coconut Journal" etc.

b) Agronomy Section.

One Farm Superintendent (Rs. 250-500), One Junior Research Assistant and one Fieldman. In view of the large number of agronomical experiments to be laid out additional staff is required.

c) Cyto-Anatomy Section

One Junior Research Assistant, one Laboratory Assistant, one Fieldman and one Laboratory Attender (Rs. 30-½-35). The additional staff is required to investigate the effect of plant hormones and the cyto-genetic aspect.

d) Chemistry Section.

Two Junior Research Assistants, and two Laboratory Attenders The additional staff is required to work on fundamental aspects of soil, manures etc.

Besides strengthening the existing staff as mentioned above it is proposed to provide 30 acres of coastal sandy area for the Agronomy Section to work on properly laid out and fenced and with two filter points at a cost of Rs. 45,000/-. The present extent of coastal sandy area available in the Station is only 6 acres and it is considered too inadequate. For the Chemistry Section special laboratory equipment costing Rs. 10,000/- is asked for.

B Provision of staff and facilities for new items of work.

The new items of work proposed are:— a) coconut survey work, i. e., a survey of coconut varieties found growing in various parts of India to spot out more productive and economic forms for planting.

b) A soil survey of the coconut tracts of India particularly on the West Coast so that advice may be given to growers regarding suitability of particular areas to grow coconuts.

c) Setting up a Technological Wing in the Laboratory at the Central Coconut Research Station, Kasaragod.

d) Statistical work connected with field experiments.

e) Agricultural meteorology and crop weather studies, &

f) Library work.

The staff and expenditure proposed for the above-mentioned items of work are as follows:

a) Coconut survey work

One Junior Research Assistant and one Fieldman. Total cost including T. A. Rs. 23,060 for the 5-year period.

b) Soil survey work.

One Soil Survey Officer (Rs. 250-500), one Junior Research Assistant, one Laboratory Attender, one Peon and one motor van driver. Total cost including T. A. for the 5-year period is Rs. 59,680/-. A mobile van for Rs. 20,000/-, laboratory equipment for Rs. 35,000/- and contingencies for Rs. 10,000/- are also provided.

c) Technological Wing.

A special sub-committee set up by the Indian Central Coconut Committee to examine the field of coconut technology and to advise the Committee about the aspects of work needed to be investigated and the question whether the scope of work would warrant the setting up of a Technological Laboratory of the Committee had recommended that there was great and urgent need for establishing a Technological Laboratory of the Committee and that it should be set up in conjunction with the Central Coconut Research Station, Kasaragod. The Committee considered the special sub-committee's recommendations and decided, however, that the question of setting up a Technological Laboratory might be deferred in view of their then financial difficulties.

Among others, the following problems deserve to be investigated :

1. Preparation and storage of copra.
2. Extraction and utilisation of coconut oil.
3. Reduction of oil content in oil cake and utilisation of oil cake

4. Use of coconut shell for commercial, industrial and other purposes.
5. Preparation of jaggery and vinegar from toddy.
6. Utilisation of coconut timber, etc.

In view of the importance of the subjects to be investigated and the urgency of the problems to be investigated the subject may be included in the second Five-Year Plan for implementation.

d) Statistical work.

Staff proposed consists of one Statistician (Rs. 250-500), one Computor (Rs. 80-220), and one Peon. Equipment (calculating machine etc.) for Rs. 5,000/-. Total cost for 5-year period is of the order of Rs. 37,760/-.

e) Agricultural Meteorology and Crop Weather Observations.

Staff proposed are one Junior Research Assistant and one Fieldman. Total cost for 5-year period is Rs. 21,000/-.

f) Library.

Staff proposed are one Librarian (Rs. 80-220) and one Library Attender (Rs. 30-½-35). Library equipment for Rs. 5,500/- is also proposed. Total cost for 5 years amounts to Rs. 16,100/-.

C. Other additional facilities.

These consist of:— a) a Station Waggon to transport farm stores, seedlings etc.

b) a hostel with 5 suites of rooms for the stay of trainees and ryots coming to the Station.

c) a glass house to conduct cultural experiments under controlled conditions, and

d) strengthening the office staff.

The financial implications of the above-mentioned proposals are as follows:—

a) *Station Waggon*:- A driver (Rs. 55-130) and a cleaner (Rs. 30-½-35) are proposed to be appointed. Including cost of vehicle (Rs. 20,000) and contingencies (Rs. 5,000) the proposal involves a total expenditure of Rs. 35,920/-.

b) *Hostel:-* Estimated expenditure is Rs. 30,000/-.

c) *Glass House:-* Estimated expenditure is Rs. 30,000/-.

d) *Administration:-* An additional staff of one Office Assistant (Rs. 80-220), one Clerk (Rs. 55-130), one Typist (Rs. 55-130) and three Peons may be provided. Office equipment (typewriters, duplicators etc.) for Rs 3,000/- is also proposed to be bought.

The total cost of the proposals is of the order of Rs. 11,70,340 as per details indicated in statement No I.

II. Central Coconut Research Station, Kayangulam.

On the basis of the proposals put up by the Joint Director, Central Coconut Research Station, Kayangulam for expanding work at his Station during the Second Five-Year Plan, the following suggestions are made:—

I. General.

The proposals comprise the acquisition of an additional 10 acres of land as the present farm area of 57 acres is not enough for experimental purposes, the construction of an insect-proof glass house to pursue the biological aspect of disease investigation, the putting up of an insectary for the Entomology Section, construction of a pot culture house and the purchase of a utility motor van or lorry for work connected with soil survey, plant protection etc. Provision has also been made to meet pay and allowances of the driver and cleaner and also the running expenses of the van.

2. Research.

a) Entomology:

A pilot scheme to demonstrate the utility of controlling the rhinoceros beetle by spraying breeding places with B. H. C. and ecological studies of *Nephantis serinopa* are proposed. Additional staff proposed consists of one Senior Research Assistant, one Junior Research Assistant and four Fieldmen.

b) Plant Pathology:

Work on virus investigations and studies on the microflora of coconut soils are proposed. Additional staff proposed are one Assistant Virus Pathologist (Rs. 275-800), one Senior Research

Assistant, one Research Assistant (Rs. 80-220), two Fieldmen, one Laboratory Assistant and one Laboratory Attender.

c) Plant Physiology:

Studies on the physiology of nutrition in coconuts are proposed. Additional staff proposed are one Senior Research Assistant, two Research Assistants, one Fieldman and two Laboratory Attenders.

d) Soil Chemistry:

A scheme for collection of comparative data of soil and plant material from healthy and diseased coconut areas is proposed. Additional staff proposed consists of two Research Assistants, two Laboratory Assistants, two Laboratory Attenders and one Peon.

3. Administrative

The Joint Director has not provided for any additional staff on the administrative side. It may, however, be necessary to provide for an additional staff of an Office Assistant, one Clerk and one Typist.

The financial aspect of the proposals, details of which are indicated in statement No 2, will be as follows:-

I.	General	Rs.	1,17,920
II.	Research	Rs.	3,84,600
III.	Administrative	Rs.	21,720
	Total	Rs.	5,24,240

III. Coconut Nurseries

The overall out-turn of coconut can also be stepped up by planting quality seedlings, which when they grow into trees would yield about 50 per cent more nuts than seedlings of uncertain quality. The Committee has organised a number of nurseries all over the coconut-growing areas in the country with an annual production target of 5 lakhs of seedlings. The demand for seedlings has been increasing steadily and many of the nurseries have found it difficult to meet the growing demand The output of the seedlings will have to be increased fourfold to supply the entire requirements of seedlings especially since private nurserymen cannot be relied upon to supply reliable quality seedlings. The time is, therefore, opportune for harnessing the public interest in quality seedlings for organising more nurseries as recommended by the Minister for Agriculture, Government of India in his inaugural address at the 17th meeting of the Committee.

a) Travancore-Cochin State

About a third of the area under coconut in the State is estimated to have been affected by disease because of which the number of parent trees from which seednuts could be selected are limited. Besides, the Director of Agriculture of the State has reported that he has been finding it difficult to dispose of all the quality seedlings produced in his nurseries. Because of these, it is not advisable to establish additional coconut nurseries in the State during the 2nd 5-Year Plan.

b) Madras

It may be possible to organise five additional coconut nurseries in the State, three in Malabar District and two in South Kanara District, each with an annual target production of 6,000 seedlings. The possible centres in Malabar District where they may be established are Chowghat, Pappinasseri and Payyanur and in South Kanara District Udipi and Coondapur. The cost for organising the five nurseries has been indicated in statement No. 3.

c) Mysore

It has been proposed to start six nurseries, four each with an annual target of 10,000 seedlings, one each at Arsikere, Tiptur, Mandya and Babbur and two nurseries each with an annual target of 75,00 seedlings, one each at Tungabadra and Chamarajnagar. The cost for organising and working them for five years has been given in statement No. 4.

d) Andhra

Three additional coconut nurseries each with an annual target production of 7,500 seedlings are proposed to be established, one each possibly at Kalahasti, Bapatla and Buchureddipalam and their cost for five years is indicated in statement No. 5.

e) Bombay

During the last year some difficulties were experienced in the disposal of seedlings; hence it would not be possible to suggest organisation of more nurseries at present Efforts would, however, be made to increase the output of the existing nurseries, if possible.

f) Orissa

During the 2nd Five Year plan period it is proposed to organise a nursery with an annual target production of 5,000 seedlings at Ganjam and another with an annual target production of 3,000 seedlings attached to the Regional Coconut Research Station at Sakhigopal. Their cost for 5 years has been given in statement No. 6.

g) West Bengal

It is proposed to start two nurseries in the State, one in Midnapur District and the other in Jalpaiguri District each with an annual target production of 3,000 seedlings. The cost of running them for five years is given in statement No. 7.

h) Assam

There is very little chance of any additional nursery being organised in the State at present.

i) Laccadive Islands

The Laccadive Islands lying off the Malabar Coast in the Arabian Sea have about 6000 acres under coconut. The conditions of cultivation are, however, primitive and there is great scope for improving the existing gardens and for future development. The Government of Madras had sent out a Special Inspecting Officer and party to the islands in December, 1951 and on the basis of the recommendations made by that Officer decided to take steps to improve and develop coconut cultivation in the Laccadives. One of the proposals is to start a coconut nursery in the islands.

In that connection it is necessary to appoint an Agricultural Demonstrator who will be in charge of the nursery and also other work such as propaganda, demonstration etc. He will be assisted by a Fieldman, a Maistry and a Peon. The production target for the nursery may be fixed at 5,000 seedlings per annum, to produce which about 7,000 seednuts may have to be collected every year.

Financial statement showing details of expenses and receipts:-

Expenses :

1) Staff:

a) Pay

	I Year Rs.	II Year Rs.	III Year Rs.	IV Year Rs.	V Year Rs.	Total Rs.
One Agricultural demonstrator on Rs. 100-5-140-EB-10-220	1,200	1,260	1,320	1,380	1,440	6,600
One Fieldman on Rs. 45-2-55-1-60	540	564	588	612	636	2,940
One Maistry on Rs. 20-1-30	240	252	264	276	288	1,320
One Peon on Rs. 16-½-25	192	198	204	210	216	1,020
Total	2,172	2,274	2,376	2,478	2,580	11,880

b) Dearness allowance.

Agricultural Demonstrator	288	312	324	336	348	1,608
Fieldman	264	264	264	264	264	1,320
Maistry	216	228	228	228	228	1,128
Peon	216	216	216	216	216	1,080
Total	984	1,020	1,032	1,044	1,056	5,136

c) Travelling allowance.

	500	500	500	500	500	2,500

2) Other Charges

	I Year Rs.	II Year Rs.	III Year Rs.	IV Year Rs.	V Year Rs.	Total Rs.
Lease amount for an acre of land.	200	200	200	200	200	1,000
Rent for office & stores.	100	100	100	100	100	500
Cost of 7000 seednuts at Rs. 200 per thousand.	1,400	1,400	1,400	1,400	1,400	7,000
Harvesting, packing and transporting charges.	350	350	350	350	350	1,750
Gunnies for packing seednuts.	150	...	150	...	...	300
Preparation of nursery area.	300	300	100	50	50	800
Planting seednuts, watering, weeding etc.	200	500	500	500	500	2,200
Mud-pots, buckets etc.	50	50	20	20	20	160
Temporary sheds, fencing etc.	250	50	50	50	50	450
Contingencies for office	200	50	50	50	50	400
Total	3,200	3,000	2,920	2,720	2,720	14,560
Grand Total	6,856	6,794	6,828	6,742	6,756	34,076

Receipts

By sale of 5000 seedlings at 8 annas each.		2,500	2,500	2,500	2,500	10,000
By sale of ungerminated seednuts.	50	50	50	50	50	250
Total	50	2,550	2,550	2,550	2,550	10,250

Sharing of Expenditure and Receipts

Total expenditure	Rs.	34,076
Deduct lease amount & rent for office and stores.	Rs.	1,500
Amount to be shared equally between Central Government & State Government	Rs.	32,576
Central Government's share	Rs.	16,288
State Government's share	Rs.	16,288 +
		1,500
	Rs.	17,788
Total receipts.	Rs.	10,250
Central Government's Share (40%).	Rs.	4,100
State Government's Share (60%).	Rs.	6,150
Net expenditure for Central Government.	Rs.	16,288 –
		4,100
	Rs.	12,188
Net expenditure for State Government.	Rs.	17,788 –
		6,150
	Rs.	11,638

IV. Regional Coconut Research Stations

The Committee has recognised the importance of organising Regional Coconut Research Stations for carrying out experiments on the cultural and manurial aspects of coconut cultivation of regional character and for solving local problems concerning coconut cultivation. Three such stations are already functioning in Travancore-Cochin State and another station which was organised in Orissa was closed down some time back. Steps have been taken to re-start it in a more suitable site. Provision has been made by the Committee for establishing a Regional Research Station in Assam. The Governments of Andhra and Bombay have taken steps to acquire land for their regional Research Stations and they may be started soon. It should be possible to organise Regional Research Stations in Madras and Mysore States under the 2nd Five Year Plan as indicated below:

(a) Madras

Two Regional Coconut Research Stations may be started one each in Malabar and Tanjore Districts and the cost involved in establishing them is indicated in Statement No. 8.

(b) Mysore

Two Regional Research Stations may be organised in the State one each at Arsikere and Chennapatna. Of the land required for the Research Station 15 acres at each of the stations will be acquired on lease; the remaining land being acquired from Government grazing reserve lands. The cost involved in organising the 2 research stations is given in Statement No. 9.

V. Organisation of Demonstration Work

(a) Travancore-Cochin State

According to proposals discussed with the State Agricultural Department, it is proposed to have 4 concentration demonstration centres, each centre being located in a central taluk of each district of the State. Each such concentration centre will have 6 Key Centres in six adjoining villages. Under each key centre there will be two demonstration plots with 50 trees in each plot with control plots adjoining them. Thus in the 4 concentration centres there will be 48 demonstration plots with 2,400 trees in them. In the remaining 24 important coconut growing taluks, key centres will be set up at the rate of one in each taluk. These 24 centres will have a total of 48 demonstration plots with 2,400 trees in them. Thus demonstration work will be done in respect of 4,800 coconut palms.

Growers in an area of 10 acres round each demonstration plot will be encouraged to adopt improved methods of cultivation, manuring etc. and as an inducement to them *Crotalaria striata* seeds will be supplied to them at a subsidized price. The total area thus covered will be 960 acres.

The 4 concentration centres will be under the charge of special Supervisors each, while the 24 key centres will be run by the regular departmental demonstrators.

The financial implications of the scheme will be as follows:—

	I Year Rs.	II Year Rs.	III Year Rs.	IV Year Rs.	V Year Rs.	Total Rs.
Pay & Dearness Allowance of 4 Supervisors (Scale of pay Rs. 45-75 and Dearness Allowance at Rs. 27 per mensem).	3456	3696	3936	4176	4416	19680
Travelling Allowance of 4 Supervisors at Rs. 20/- per month.	960	960	960	960	960	4800
Subsidy for manures at 50% of cost	3000	3000	3000	3000	3000	15000
Contingencies	1000	1000	1000	1000	1000	5000
Cost of implements	4800					4800
Subsidy for spraying coconut palms at 1 anna per spraying for 3 sprayings a year	900	900	900	900	900	4500
Subsidy to distribute *Crotalaria striata* at the subsidised rate of 4 as. per lb. to growers round the demonstration plots.	5000	5000	5000	5000	5000	25000
Total	19116	14556	14796	15036	15276	78780

Cost of the Central Government = Rs 39,390/-.

Cost of Travancore-Cochin Government = Rs 39,390/-

(b) Madras State

Demonstration plots are proposed to be laid out at the following centres in Madras State:—

(1) Pattukottai (2) Chowghat (3) Valappad (4) Badagara (5) Payyannur (6) Udipi and (7) Coondapur.

Three demonstration plots each one acre in extent with control plots of equal extent attached will be laid out in each of the seven centres. On the basis of an average number of 70 trees per acre in the treatment plots the total number of trees to be treated will be 1470 or 1500 (round).

At Pattukottai & Badagara there are coconut nurseries at present and the nursery assistants will be in charge of the demonstration work there. A nursery is proposed to be started at Chowghat and the officer in charge of it will have supervision of the demonstration plots at Chowghat as well as Valapad. Nurseries will be started in the remaining three centres as well and the officers in charge of them will be in charge of the demonstration plots at these centres.

Thus there will be no separate expenditure for supervision of the proposed demonstration plots. The expenditure will be only in respect of manuring, cultivation etc. which is proposed to be shared equally between the Government of India and the State Government.

Details of the expenditure involved are shown below —

1)	Cost of manuring 1500 trees at Rs. 1/6 per tree per year for 5 years.	Rs. 10,312 8 0
2)	Cost of Chemicals to treat trees against diseases and pests at 6 annas per tree per year for 5 years.	Rs. 2,812 8 0
3)	Cost of improved implements etc.	Rs. 3,000 0 0
4)	Contingencies at Rs. 350/- per annum for 5 years.	Rs. 1,750 0 0
	Total	Rs. 17,875 0 0

Cost of manures (50 per cent) to be met by the owners of the demonstration plots.	Rs. 5,156 4 0
Cost to be shared by the Central Government and Madras Government.	Rs. 12,718 12 0
or 12,750 0 0 (Round).	
Government of India's share (50 per cent)	= Rs. 6,375 0 0
Madras Government's share	= Rs. 6,375 0 0

c) Mysore

A scheme for the organisation of demonstration centres in growers' gardens in the State has already been sanctioned by the

Committee; which it is hoped will come into operation soon. There is therefore no need to provide for a scheme on the subject in the 2nd Five Year Plan.

d) Andhra State

Three Demonstration plots each one acre in extent are proposed to be laid out at each of the following six centres in Andhra State :—

(1) Amalapuram, (2) Razole, (3) Palacole, (4) Sompet, (5) Narasapur and (6) Samalkot. As in the case of the Madras State these demonstration plots will be under the supervision of the officers in charge of the nurseries at the respective centres.

The cost of running the demonstration plots will be as follows:

Cost of manuring 1250 trees	Rs. 8,593 12 0
Cost of implements etc.	Rs. 3,000 0 0
Cost of chemicals etc.	Rs. 2,500 0 0
Contingencies at Rs 300/- per annum for 5 years	Rs. 1,500 0 0
	Rs. 15,523 12 0
Cost of manures (50% to be met by the owners of the plots.)	Rs. 4,296 14 0
Cost of scheme to be shared by the Central Government and Andhra Government	Rs. 11,296 14 0 or Rs. 11,300 (round)
Central Government's share (50 per cent)	Rs. 5,650 0 0
Andhra Government's share (50 per cent)	Rs. 5,650 0 0

(e) Demonstration work in Bombay State

A scheme has already been sanctioned by the Committee under which demonstration work will be organised at Kendalgadhi and Kulkod in North Kanara District. The scheme has not yet been put into practice. It is now proposed that 8 demonstration centres may be organised including the two centres already selected. The area of each demonstration plot will be one acre and the cost of running them for a period of 5-years will be as follows:—

Manuring at Rs. 420 per plot	Rs. 3,360
Intercultivation (digging) at Rs. 150/- per plot	Rs. 1,200
Green manuring	Rs. 1,200
Irrigation where required	Rs. 1,500
Control of pests and diseases	Rs. 1,000
Contingencies	Rs. 500
	Rs. 8,700
Cost of manures (50% to be met by the owners of plots)	Rs. 1,680
Amount to be shared by Central & State Governments.	Rs. 7,020
Central Government's share (50 per cent)	Rs. 3,510
Bombay Government's share (50 per cent)	Rs. 3,510

The demonstration plots will be under the charge of the local Agricultural Officer.

(f) Demonstration work in Orissa

Demonstration plots are proposed to be laid out in the Balasore District at 8 centres to be selected later, at the rate of one plot in each centre. Each plot will have an area of one acre. They will be under the control of Propaganda Assistants to be appointed in the State. The financial implications will be as follows:—

Cost of manuring etc. for 500 trees for 5-years	Rs. 3,500
Cost of chemicals etc.	Rs. 800
Cost of implements	Rs. 1,000
Contingencies at Rs. 400/- per annum for 5 years	Rs. 2,000
	Rs. 7,300
Cost of manures (50 per cent to be met by the owners of the demonstration plots.)	Rs. 1,750
Amount to be shared by the Central & State Governments	Rs. 5,550
Central Government's share	Rs. 2,775
Orissa Government's share	Rs. 2,775

g) Laccadive Islands

The Agricultural Demonstrator for Laccadive Islands in charge of Coconut Nursery will also be in charge of propaganda demonstration work etc. He would also take measures for combating rat nuisance which is responsible for a great deal of damage to coconut palms in the islands. For helping him in the work, 9 maistries will be trained for 9 months at the Central Coconut Research Station, Kasaragod and 3 months in the Coir School, Beypore in Malabar District. During the training period each maistry will be given a stipend of Rs. 30/- per mensem. There will be 9 demonstration plots each one-acre in extent. The following are the financial implications of the scheme.

	I Year	II Year	III Year	IV Year	V Year	Total
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Stipend for 9 maistries at Rs. 30/- per mensem for 1st year.	3240					3240
Travelling Allowance for journey to mainland and back at Rs. 200/- for each.	1800					1800
Salary for 9 maistries at Rs. 20-1-30 each.		2160	2268	2376	2484	9288
Dearness allowance for 9 maistries at Rs. 18/- in the first year of appointment and Rs. 19/- in the next 3 years.		1944	2052	2052	2052	8100
Cost of manuring the demonstration plots.		1350	1350	1350	1350	5400
Cost of chemicals to fight rats & other pests.		450	450	450	450	1800
For subsidised sale of zinc phosphide.		500	500	500	500	2000
Cost of implements etc.		2250				2250
Contingencies		1080	1080	1080	1080	4320
Total	5040	9734	7700	7808	7916	38198

(Round) Rs. 38,200)

Cost of manure (50 Per cent to be met by owners of plots).	Rs. 2,700
Amount to be shared by the Central Government and the State Government.	Rs. 35,500
Central Government's share (50 per cent)	Rs. 17,750
Madras Government's share (50 per cent)	Rs 17,750

VI Parasite Breeding Stations :

Nephantis serinopa is one of the serious pests of the coconut palm all over the coconut growing areas, especially near the sea-coast. The conference of Entomologists set up by the Committee had recommended that permanent parasite breeding stations should be established in the different zones where the pest has become almost endemic. At present there are two parasite breeding stations functioning, one at Kasaragod in Madras State and the other in East Godavari District in Andhra State. About five such breeding stations have been sanctioned for Travancore-Cochin which are expected to start functioning shortly. It is considered desirable to have such parasite breeding stations in other states also.

a) Travancore-Cochin

In view of the five stations proposed to be started in the State, there is no need to start any more stations for the present.

b) Madras

Three additional stations are proposed to be set up under the Second Five-Year Plan one each at Chowghat in Malabar District, Udipi in South Kanara District and Pattukottai in Tanjore District. The statement of cost for these three parasite breeding stations is given in Statement No. 10.

c) Mysore

The coconut trees are not affected by Nephantis serinopa in the State and there is no need for organising parasite breeding stations in that State.

d) Andhra

It is proposed to organise two additional parasite breeding stations in the State, one each at Narsapur and [illegible]. The cost of the two stations for five years is indicated in Statement No. 11.

e) Bombay

It is proposed to establish three parasite breeding stations in the State one each in North Kanara District, Ratnagiri District and Colaba District. The cost for five years is given in Statement No. 12.

f) Orissa

There is a well equipped Plant Protection staff in the State and there is no need for organising parasite breeding stations in the State.

g) West Bengal

It is proposed to establish one parasite breeding station in the State and the cost involved is indicated in Statement No. 13.

VII. Appointment of Coconut Propaganda and Development Officers

The necessity for conveying the results of research on coconut cultivation to the growers has been recognised by all hands. The Hon'ble Minister for Food and Agriculture had on several occasions emphasised the importance of undertaking extension service work by the Committee to ensure that the results of research and scientific agricultural knowledge are conveyed to the door of the cultivators through propagandists who could not only explain to them the better and newer methods of cultivation in a language understood by them but could also persuade them to step out of the traditional rut and adopt in actual practice the ideas presented to them.

A great deal of useful information could be disseminated among coconut growers by contacting them directly and giving them personal help and direction. Experience has shown that growers appreciated that they have in this Committee a friend and a guide and the growers have asked for the appointment of Propaganda Officers who could go round the coconut gardens and bring home to the growers the importance of planting quality seedlings, proper inter-spacing. manuring, inter cultivation, control of pests and diseases, production of quality copra etc

The Committee s major task is to see that steps are taken by the coconut growers to step up the production of coconut so that the country may become self-sufficient in this commodity as early as possible. The existing staff of the Agriculture Department of the coconut growing States are not in a position to focus their attention on matters connected with coconut cultivation etc., saddled as they are with the work concerning various other crops not to mention of the "Grow More Food" Campaign. Recognising the importance of the subject the Government of Travancore-

Cochin have appointed a Propaganda Officer exclusively for coconut propaganda and the officer has been working during the last 3 years. The special sub-committee set up by the Committee for making proposals for stepping up the production of coconut in a designated period of time and recommending proposals for the purpose had recommended and the recommendation has been accepted by the Committee that Coconut Propagnada Officers should be appointed to start with for Madras, Mysore and Andhra as in the case of Travancore-Cochin State.

I. Coconut Propaganda Officers:

(a) Madras

It is hoped that the Madras Government would be prepared to appoint a Coconut Propaganda Officer for the State and the cost involved is indicated in Statement No. 14.

(b) Andhra

The matter has been taken up with the Andhra Government and it has been proposed that a Propaganda Officer should be appointed for the State. The cost of a five-year scheme for the purpose has been indicated in Statement No. 15.

II. Coconut Development Officer.

Travancore—Cochin

There is already a Coconut Propaganda Officer functioning in the State jointly financed by the State Government and the Committee who it has been proposed will continue to function as in the past. But in view of the importance of the crop to the State, the peculiar problems posed for the State and the enormous work involved in spraying work etc., it has been found necessary to suggest the appointment of a Coconut Development Officer to be in charge of all coconut development works in the State under the control of the Director of Agriculture of the State. He will also supervise the work of the coconut nurseries and Regional Coconut Research Stations; organise crop competitions and demonstration plots, supervise the distribution of green manure seeds and fertilisers and carry out other items of work connected with the coconut development. Details of the expenditure connected with his appointment and that of his staff are indicated in Statement No. 16.

III. Coconut Propaganda Cum Development Officer:

(a) Mysore

It would be necessary to appoint a Coconut Development Cum Propaganda Officer for the State for carrying out propaganda and development work relating to coconut. He will be assisted by four Propaganda Assistants one each in the four most important coconut growing districts of the State. The cost involved has been indicated in Statement No. 17.

(b) Orissa

During the Second Five Year Plan period a Coconut Research and Development Officer will be appointed in Orissa who will be in charge of the propaganda work in the State, besides being in charge of the Regional Coconut Research Station, Sakhigopal. He will be assisted in the propaganda work by two Propaganda Assistants one for the Districts of Ganjam and Puri and the other for Cuttack and Balasore. They will be in charge of 8 demonstration plots to demonstrate to the growers the known methods of manuring and cultural operations. The expenses connected with the demonstration work have been indicated under the appropriate head. The cost of the propaganda staff has been shown in Statement No. 18.

VIII. Plant Protection Work :

Discussion with the Officers of the Agricultural Departments of the important coconut growing States has shown that they have their own Plant Protection staff and they are satisfied that the organisation would be adequate to meet the plant protection work relating to coconut. It may, however, be necessary to organise a separate scheme for spraying coconut palms to control leaf diseases etc., in Travancore-Cochin and to strengthen the Plant Protection staff in Mysore.

a) Travancore-Cochin State

It is proposed to have a separate scheme for spraying coconut palms to control the leaf disease in Travancore-Cochin State. The spraying work will be undertaken on a unified basis in all the 22 disease affected taluks by the Agriculture Department. There will be 31 spraying units each having four sprayers under a Supervisor for undertaking the spraying work. Spraying charges would be fixed at one anna per tree as against the present rate of 2 (two) annas to make the spraying very popular. The cost for the scheme has been indicated in Statement No. 19.

b) Mysore State

For purposes of plant protection work with regard to coconut in the State, it is necessary to strengthen the existing plant protection staff by the provision of a Fieldman at each of the four important coconut growing districts. It would also be necessary to provide for an annual lump sum amount of Rs. 10,000/- for the distribution of chemicals at 50 per cent of the cost. The cost of the scheme has been indicated in Statement No. 20.

IX. Organisation of Coconut Crop Competition in Mysore State.

There is a coconut crop competition scheme functioning in Travancore-Cochin State. Some of the other States do not wish to organise coconut crop competition in their States. It is proposed to organise in the Mysore State annual coconut crop competitions during the Second Five Year Plan. The competition will be organised every year in the Districts of Tumkur, Hassan, Chikmagalur and Chitaldrug which have largest coconut growing areas in the State. The competition will be organised in 3 taluks in each district, the taluks being selected from the point of view of their importance as coconut growing areas. An entry fee of Re. 1/- will be levied for entering a plot for the copetition and a minimum of 18 competitors will be insisted upon for each taluk for organising the competition there. A State prize of Rs. 500/-, four District prizes of Rs. 200/- each and 12 taluk prizes of Rs. 75/- each will be offered.

The expenditure and receipts will be as follows:—

One State Prize	Rs. 500
Four District Prizes	Rs. 800
Twelve Taluk Prizes	Rs. 900
Miscellaneous expenditure for organising meetings for awarding prizes.	Rs. 600
	Rs. 2800
Total for one year	Rs. 14000

For five years.

Receipts per year from a minimum of 144 entries at Re. 1/- per entry.	Rs. 144
For five years.	Rs. 720
Net expenditure	Rs. 13280
Central Government's share (50 per cent).	Rs. 6640
Mysore Government's share (50 per cent).	Rs. 6640

X. Celebration of "Coconut Day"

It is proposed to celebrate at the Regional Coconut Research Stations, Coconut Nurseries and Stations for the biological control of *Naphantis serinopa* one day in the Vanamahotsava Week in July as "Coconut Day" when meetings will be organised and propaganda done to focus attention on coconut cultivation. A sum of Rs. 100/- may be made available to each Regional Research Station and nursery to celebrate the "Coconut Day" in a suitable manner. There are at present 26 nurseries, three regional research stations and two *Nephantis* (biological) control stations. Under the Second Five Year Plan the number of nurseries would go up to about 43, the number of Regional Stations to about 12 and the number of biological control stations to 16. A provision of Rs. 7,100/- per annum will therefore, have to be made and the total amount to be provided for 5 years will be Rs. 35,500/-. The amount may be shared equally by the Central and State Governments.

The share of the Central Government will be	Rs. 17,750
The share of the State Government will be	Rs. 17,750

(The contribution of the State Governments will be at the rate of Rs. 50/- for each nursery, Regional Research Station and biological control station.)

XI. Award of a prize for a Dehusking Machine for Coconut.

It may be worthwhile to encourage people to invent a time saving machine for the de-husking of coconuts. At present more than 3,200 million nuts are de-husked annually in the country and the amount of time and energy, that such a machine if invented, could save, would be enormous. It may, therefore, be worthwhile to institute a prize for the invention of a de-husking machine. A prize of Rs. 10,000 may be offered for the purpose and it is presumed that the amount is sufficiently attractive. The prize would be awarded to the best possible machine invented and demonstrated to the satisfaction of a small sub-committee of judges constituted by the Committee for the purpose. The entire amount of the prize may be met by the Government of India.

XII. Appointment of a Marketing Officer

A report on the marketing of coconut and coconut products was published by the Agricultural Marketing Adviser to the Government of India in 1944. The report had indicated among others the need for stepping up the production of coconut regulation of imports of coconut products, improvement in the quality of copra, better utilisation of the various coconut products and improvements in the marketing methods so as to secure better returns to the coconut growers and focussed attention on the importance of the coconut industry in the economy of the country.

The report on the marketing of coconut published by the Agricultural Marketing Adviser has become almost out of date. The report contains useful information on all the aspects of the coconut industry and is a most valuable reference book. A revision is called for urgently, particularly because of a number of changes that have taken place since the last World War in the marketing of coconuts and their products, such as a large increase in the price of coconut, and demand for larger quantities of coconut for various purposes. The prices of imported coconut products react on those of the indigenous products and the question of keeping a balance between the local production and imports is important. For this a periodical examination of the position with regard to the production of coconut in India and the imports has to be made. This would also be found useful in tendering advice to the Government of India, every six months, as required by them in connection with the regulation of the quantities of coconut products imported into India.

It would also be necessary to prepare annual reviews indicating in detail the general marketing trends with regard to coconuts in India and Indian markets in relation to the trend in world markets. Standard contracts have been drawn up for copra and grade specifications have been fixed for coconut oil. Considerable amount of persuasion would be needed to make some of the leading mills to agree to grade their oil on the basis of the grade specifications. The possibilities of grading coconut oil on a compulsory basis also requires to be examined

Regulated markets for coconut and copra have been established in Malabar and South Kanara Districts in Madras State and East Godavari District of Andhra and at Tiptur in Mysore State. Advice will have to be tendered to the Travancore-Cochin State to persuade them to establish such markets. Some arrangements are also necessary for prices at Key-markets to be made known in rural areas for the benefit of growers after reducing them to a standard basis.

It should also be possible to improve the lot of the coconut growers by developing the marketing of coconut and copra on a co-operative basis. Co-operative Societies could provide cheap credit facilities to copra makers, make copra from coconuts collected from members and market members' copra after drying it properly. These societies could also be made to function as multi-purpose societies to meet the various requirements of the members. There are many other connected items of work and to attend to them and those indicated above, it would be necessary to appoint a whole-time Marketing Officer. It is, therefore suggested that a Marketing Officer may be appointed on Rs. 275-800 with a starting salary of Rs. 350/-.

He will be attached to the Committee and will work under the control and supervision of the Secretary of the Committee. He may be given the assistance of a Typist and a Peon. The cost for the purpose inclusive of Dearness, Travelling allowances etc., which should be met entirely by the Government of India, is indicated in Statement No. 21.

XIII. An Editor for the Publications of the Committee.

The Committee is now publishing the following periodicals:—

The "Bulletin" (monthly) in English, Malayalam and Kannada.

"The Indian Coconut Journal" (Quarterly) in English.

The Committee has published about a dozen pamphlets in English and the regional languages and more leaflets are being planned.

At present there is no editor to attend to the preparation and editing of the material for the "Bulletin", "Journal", leaflets etc. This work is attended by the Head Assistant and an Office Assistant in the Publication Section of the office, as best as they may. But with the large increase in the circulation of the "Bulletin" the business side of the publication work is claiming the constant attention of the Section staff. It is proposed to appoint a Circulation Promotion Officer and the 17,000 copies of the Bulletins being printed at present are sure to increase still further. It is feared that the increasing pre-occupation of the staff with the business aspect will tell upon the editorial work. It is, therefore, considered necessary to have a separate person with journalistic experience to be in charge of the editing of the various publications of the Committee. An editor may be appointed in the scale of pay of Rs. 250-15-400

The post may be sanctioned for a period of 5 years to start with. It is not possible to meet the cost from the meagre funds of the Committee and has to be debited to the Second Five Year Plan.

The cost on this account which has to be met entirely by the Government of India will be as follows:—

	I Year	II Year	III Year	IV Year	V Year	Total
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Pay	3,000	3,180	3,360	3,540	3,720	16,800
Dearness Pay	390	390	390	390	420	1,980
Dearness Allowance	390	390	390	390	420	1,980
Total	3,780	3,960	4,140	4,320	4,560	20,760

XIV. Circulation Promotion of the Committee's "Bulletin"

Mr Malcolm Orchard, Agricultural Information Adviser to the Indian Council of Agricultural research, whose advice was sought for improving the get-up and circulation of the "Bulletin" issued by the Committee had stated that for stepping up circulation a high calibre young agricultural graduate with rural bias and sales aptitude could be appointed by the Committee, to contact growers and enlist subscribers. He was to be given circulation promotion training by Mr. Orchard and Mr. Das of the Indian Council of Agricultural Research. The salary of this Circulation Promotion Officer, it was stated, would be met from the [illegible] al funds of the T. C. A. The proposal was approved by the Committee at its 17th meeting (April [illegible]) and it was decided that a young agricultural graduate with the required qualities and aptitudes should be appointed on an initial pay of Rs. [illegible] in the scale of Rs. 160-10-330 as Circulation Promotion Officer. The appointment, however, was not made as funds from under the T. C. A. were not forthcoming for the purpose. It is now suggested that the proposal may be implemented as part of the Second Five Year Plan and a sum of Rs. 27,040/- may be provided for the purpose by the Government of India as per details given below:—

	I Year Rs.	II Year Rs.	III Year Rs.	IV Year Rs.	V Year Rs.	Total Rs.
Salary of the Officer	2400	2520	2640	2760	2880	13200
Dearness Pay	360	390	390	390	390	1920
Dearness Allowance	360	390	390	390	390	1920
Travelling Allowance	2000	2000	2000	2000	2000	10000
Total	5120	5300	5420	5540	5660	27040

XV. Investigation into the Cost of Cultivation of Coconut.

Investigations into the economic aspects of cultivation particularly with regard to the cost and income structure are necessary before effective action can be taken to advise growers about efficient use of the factors of production such as fertilisers, land, labour etc. and assist them to reduce cost and increase the net return from the land. Enquiries on the cost of cultivation of coconut were made in 1949 in the case of the erstwhile Cochin State, in 1950 in Travancore and in 1952 in Malabar and South Kanara Districts of Madras State, by persons drawn from the Committee without the appointment of special staff. The enquiries cannot therefore be considered satisfactory except that they have given rough and ready indications of the trend of cost of cultivation. It is generally recognised that the above surveys have to be repeated at intervals of about 4 or 5 years to enable us to study the variations in the cost and income structure and to keep the information up-to-date. The object of the present scheme is therefore to conduct sample surveys in 1956 and 1957 in Travancore-Cochin and Malabar and South Kanara Districts which together comprise about 72% of the coconut growing tracts in India, so as to study the variations in the data relating to the cost of cultivation, since the surveys last conducted in those areas.

Six full time Investigators will have to be appointed, each in charge of about 10 primary units of enquiry so that they can visit all the selected gardens once in 15 days. There will be two Assistant Statistical Officers to supervise the work of the Investigators. Their work will be organised, planned and supervised by a Statistical Officer.

The duration of the scheme will be two years. The Investigators will be appointed for a year and one month, and the Assistant Statistical Officers for a year and a half as they have to help in the selection of holdings and gardens etc. before the survey is actually started. Two of the Investigators will be retained for six months after the survey is completed, for helping the officers in the compilation work. The Statistical Officer will have to be appointed for two years as he is responsible for the compilation of the report. An honorarium of Rs. 5/- will have to be provided for each village Karnam or Accountant for help in preparing the list of holdings, demarcation of holdings etc. The cost for the two-year period which should be met entirely by the Government of India is of the order of Rs. 43,000/- as per details indicated in Statement No. 22.

XVI. Estimation of area and Yield of Coconuts.

I. Pilot schemes to evolve a proper method of sample surveys.

Absence of correct statistics of area and yield of coconuts has proved a great handicap in the planning and development of coconut industry. Unlike seasonal crops sample surveys for estimation of yield of coconut poses certain special problems and hence the necessity for devising a suitable sampling technique for the purpose. The Indian Central Coconut Committee had therefore, at its meeting in April 1950 sanctioned pilot schemes to evolve a proper method for the correct estimation of area and yield of coconut in Travancore-Cochin, Madras, Mysore and Bombay and agreed to share the cost of these schemes equally with the State Governments.

The Governments of Travancore-Cochin, Madras and Bombay have been unable to implement the scheme so far due to financial stringency. The Mysore Government have however started the scheme and work connected with the estimation of area under coconut and number of coconut trees has been completed while yield estimation is in progress.

The pilot scheme sanctioned for the other States have also to be implemented without delay in order to have accurate data regarding present production of coconuts and to evolve a proper technique for future surveys required in connection with the assessment of results of the Second Five Year Plan. The State Governments have again been addressed in the matter. In case they are unable to do so the expenditure in connection with these pilot surveys will have also to be met by the Central Government. Details of staff and expenditure required for the States of Travancore-Cochin, Madras, Andhra and Bombay, where this work has to be done, are as follows:-

Periods of all these schemes are for a year only.

1. Travancore-Cochin

12 Investigators on Rs. 30/- per mensem	Rs. 4,320
Dearness Allowance at Rs. 27/- per mensem.	Rs. 3,888
Travelling Allowance at Rs. 16/- per mensem	Rs. 2,160
Labour charges	Rs 2,000
Other contingencies.	Rs. 2,000
Total	Rs. 14,368

2. Madras

The scheme for Madras State approved by the Committee covers the districts of Malabar, Tanjore and East Godavari. Since a separate scheme for Andhra State has been received from that State Government, a tentative modified scheme for the residuary Madras State will be as follows:-

Supervisors 3 on Rs. 100-8-140	Rs 3,600
Fieldmen 6 on Rs. 54-2-55-1-60	Rs. 3,240
Compiler 1 on Rs. 45-3-60	Rs. 540
Travelling Allowance	Rs. 3,000
Dearness Allowance	Rs. 2,928
Other charges	Rs. 3,900
Total	Rs. 17,208

3. Andhra

Scheme for Andhra covers East Godavari only. Details of staff and expenditure are as follows:-

Statistical Supervisor (1) on Rs. 100-8-140 (Pay and Dearness Allowance)	Rs. 1,567
Fieldmen (2) on Rs. 45-2-55-1-60 (Pay & Dearness Allowance)	Rs. 1,565
Computor (1) on Rs. 45-3-60 (Pay & Dearness Allowance)	Rs. 782
Peon (1) on Rs. 18/- (Pay & Dearness Allowance)	Rs. 413
Travelling Allowance	Rs. 1,500
Other charges	Rs. 1,490
Total	Rs. 7,317

4. Bombay

The Bombay scheme covers the districts of Ratnagiri and North Kanara. Estimates of expenditure are as follows:-

Statistical Supervisors (2) on Rs 95/- in the scale Rs. 80-5-100-8-140	Rs. 2,280
Fieldmen (8) on Rs. 55-3-85	Rs. 5,280
Compiler (1) on Rs. 55-3-85	Rs. 660
Dearness Allowance	Rs. 5,940
Travelling Allowance	Rs. 2,500
Other charges	Rs. 3,200
Total	Rs. 19,860

The Government of India have agreed to meet the entire expenses connected with the statistical surveys and the total expenditure of the above 4 States amount to Rs. 58800/- (Round).

XVII. Assessment of Results of the Coconut Schemes under the Second Five-Year Plan

Statistical surveys have to be conducted during the first, third, fourth and fifth years of the Second Five-Year Plan period in order to assess the results of the various development schemes put into operation for stepping up the production of coconuts. The survey during the first year will assess the correct position regarding yield of nuts at the beginning of the plan period. As the effect of better manuring and cultural operations in respect of coconuts will be seen only by the third year no survey is contemplated during the second year of the Plan. The surveys during the third, fourth and fifth years will help us to assess the increase in yield as a result of the coconut schemes under the Plan. These surveys will have to be conducted in all the coconut growing States, i. e., Travancore-Cochin, Madras, Mysore, Andhra, Bombay, Orissa, Assam and West Bengal.

The total expenditure for a period of five years which the Government of India have agreed to meet amounts to about Rs 6,47,500 (Round), details of which are indicated in Statement No. 23.

XVIII. Co-operative Marketing:

With a view to promoting co-operative effort among growers it would be necessary to sanction schemes for co-operative marketing of coconuts and coconut products. The followin proposals regarding the starting of co-operative marketin societies in the different coconut growing States are made:

Travancore—Cochin

There were two schemes for the co-operative marketing c copra at Vaikom and Narakkal run jointly by the State Governmen and the Committee. Although the societies did render some goo work in the initial stages of their existence, they were later foun to function unsatisfactorily mainly due to the mis-management c the Secretaries. The Committee, therefore, stopped participatio in the schemes. It may, perhaps, be possible to start Co-operative Copra Marketing Societies in the State. The cost c the 2 Societies is indicated in Statement No. 24.

Madras

The Registrar of Co-operative Societies, Madras has agree to establish 9 Co-operative Marketing Societies under the Secon Five-Year Plan, 5 in Malabar District and 2 each in South Kanara and Tanjore Districts; the Societies being located possibly a Kozhikode, Ponani, Dharmadam, Chowghat and Payyannur in Malabar District, Nileshwar and Kasaragod in South Kanara Distric and Pattukottai and Adirampatanam in Tanjore District. The cost o establishing the 9 Societies is indicated in Statement No. 25.

Mysore

It is proposed to start 4 Co-operative Coconut Marketing Societies one each possibly at Arsikere, Tiptur, Channapatna and Chamarajanagar, the cost for the purpose is indicated in Statement No. 26.

Andhra

It is proposed to organise 3 Coconut Marketing Societies in Andhra during the Second Five-Year Plan and the cost involved is indicated in Statement No. 27.

Bombay

The cost of establishing 5 Co-operative Coconut Marketing Societies in the State, one each possibly at Kumta, Sirsi, Janjira Ratnagiri and Vengurla, is indicated in Statement No. 28.

The cost of financing 3 Co-operative Coconut Marketing Societies in the State one each possibly at Sakhigopal, Hare-krishnapur and Baliaverande. The Registrar, Co-operative Societies, Orissa has requested that the Societies should be helped to construct godowns at the Societies. Provision has therefore been made for a godown costing Rs. 5,000/- at each of the Societies and the total cost of the marketing societies is indicated in Statement No 29.

XIX. **Coconut Oil Crushing by Village Chakkus.**

The oil crushing industry occupies an important place in the country's rural economy and provides full time or part time occupation to a large number of people in the villages. There are some difficulties facing the village oil crushing industry. There is the lack of finance. Those engaged in crushing are in economic bondage to the village merchants and, therefore, buy their supplies of raw produce at comparatively high prices. There is also the antiquated method of extraction of oil. In the case of coconut oil the extraction percentage is 59% and the method employed is not only uneconomic but also a time consuming process. Many of the village chakkus do not have any outlet for automatic oozing out of the oil. The oil is removed by dipping a piece of cloth in the mortar and squeezing it into a container. The improved type of Wardha Ghani gets over this drawback and helps to extract a large percentage of oil from the copra. Under the conditions obtaining in the villages, Wardha Ghani, mostly made of wood, is inexpensive and is capable of easy repair by the villager. Besides, its construction is such that the present village chakkus can easily be converted into it. The cost of a Wardha Ghani is about Rs 250/-. Because of the attachment of a wooden stirrer in the Wardha Ghani there is no need to remove the pestle at the end of each charge unlike in the village ghani and because of the reduction in its weight, ordinary bullocks do not get tired by operating it. This ghani has eliminated the necessity of removing the pestle each time to remove the cake and leave little cake in the lower section of the pit to remove which alone the pestle has to be taken out. This the Wardha Ghani can be operated by the young and old alike. Besides, it has many other advantages.

Co-operative Societies would be found very useful for organising those already engaged in oil crushing and encouraging coconut cultivators to take up the crushing of copra as a subsidiary occupation. The village societies could be made to purchase and stock ghanis and copra at favourable prices and supply to the members and sell their oil, oilcakes etc., besides helping them with loans.

They could also take up the demonstration of the working of the improved "chakkus" and ensure that inefficient "chakkus" are replaced by improved ones. Where feasible separate societies may be organised for the purpose. In the initial stage it my be necessary to offer certain facilities in the organisation of these societies. Subsidy will need to be given for the purchase and installation of improved "chakkus". Arrangements will also have to be made for the training of those entrusted with the organisation of the coconut oil crushing by chakkus and carpenters for making and repairing "Wardha Ghanis". They may be got trained under the Akhil Bharat Sarva Seva Sangh Gram Udyog Vibhag, Maganwadi, Wardha, but financial assistance will have to be given for such training. The societies will have to be given interest-free loans for purchase of copra etc. and assisted to construct warehouses for the safe storage of copra and the finished products. They should also take steps to grade the oil and pack and mark it as pure "chakku" oil for the market. They could also encourage the development of subsidiary industries connected with coconut oil crushing such as preparation of hair oil, soap, etc. The success of these societies would depend to a very large extent on the persons in charge of them. Only properly trained men with natural aptitude for this sort of work should be selected for the work The matter needs to be gone into greater detail in conjunction with the Co-operative Departments of the State concerned. We may provide for a lump sum amount of Rs. 25,000/- per year or Rupees one lakh during the Second Five-Year Plan period to be shared equally between the Government of India and the State Governments.

XX. **Demonstration of Preparation of Copra and Coconut Oil in Orissa.**

The coconut growers in Orissa do not prepare copra and coconut oil to any appreciable extent. It may be worthwhile to organise a demonstration unit for about two years to demonstrate the methods of preparation of copra and coconut oil. It could be located in the premises of the Co-operative Coconut Marketing Society at Sakhigopal. The copra may be crushed into coconut oil by crushing it in a Wardha ghani. It may be necessary to get the services of a man conversant with the preparation of copra according to the method adopted on the West Coast. The entire cost of the demonstration unit may be met by the Government of India. The Cost of the scheme is indicated below:—

Cost of a scheme to demonstrate the preparation of copra and coconut oil.

Cost of one Wardha type of ghani	Rs. 300
Cost of a bullock	Rs. 250
Maintenance charges of the bullock at Rs. 25/- per month.	Rs. 600
Copra drying yard.	Rs. 1,000
One Demonstrator for 9 months in the year for two years at Rs. 100/- + Dearness Allowance Rs. 50/- per month.	Rs. 3,600
One Watchman on Rs. 12/- + Dearness Allowance Rs. 16/4 per month.	Rs. 678
Contingent expenditure.	Rs. 572
Total	Rs. 7,000

XXI. Establishment of Warehouses:

Having regard to the considerable help that regulated marketing can render to eliminate a number of evils in the existing marketing system the Committee had some time back recommended to the State Governments that steps should be taken for setting up regulated markets wherever considered feasible. The Madras Government have established regulated markets in respect of coconut and coconut products in the Districts of Malabar and South Kanara and Andhra State in East Godavari District. In Mysore State such markets are understood to be functioning at Tiptur, Mysore and Arsikere and a fourth may be organised soon at Nanjanad. In Bombay a regulated market is functioning at Sirsi and another is to be organised at Janjira soon.

For the proper working of the regulated markets and for ensuring that the producers obtain as large a proportion of the price paid by the consumer for coconut it is necessary to provide adequate warehousing facilities at the regulated markets. These regulated markets have to establish market yards, office buildings, etc., besides warehouses for storing the produce and they have been experiencing considerable difficulties in finding the finance for the purpose. It would be necessary to assist the market committees dealing in coconut and coconut products at least to construct the warehouses. This would go a long way in helping the coconut growers to get the advantages of improved marketing facilities and receive advances against the produce stored in the warehouses. The position in respect of the important coconut growing States is indicated below:—

Travancore-Cochin State

They have the matter still under consideration.

Madras

The Malabar Market Committee handles both coconut and arecanut but the volume of coconut handled is more than that of arecanut. Of about 21 market yards the regulated market committee propose to set up, 12 are exclusively for coconut and coconut products and the Market Committee authorities have suggested that at each of those yards a warehouse should be constructed the cost of which should be shared equally between the Committee and the Malabar Market Committee. It has been estimated that about Rs. 10,00,000 would be required for the purpose and the cost to the Committee on account of these would be of the order of Rs. 5,00,000/-.

Mysore

For the construction of four warehouses in the four regulated market committees in the State referred to above about Rs. 60,000 would be required of which half or Rs. 30,000 would have to be borne by the Government of India.

Andhra

There is a market committee functioning in East Godavari District for coconut and tobacco. The market committee propose to set up six market yards with godown facilities at Tekisettipalam, Thattipoka, Ambajipet, Amalapuram, Mummadavaram and Kothapettah in the three important growing taluks of Razole, Amalapuram and Kothapettah. These yards would handle coconut only. The market committee authorities have asked for the Committee's financial assistance in the setting up of the market yards and godowns at the above six centres. It has been estimated that a godown with zinc roof and walls would cost about Rs. 10,000/-. It is suggested that the Government of India may meet half the cost of construction of the warehouses; the other half being met by the market committee. The responsibility for the construction of the market yards should be borne entirely by the Market Committee. The Government of India's share of cost for the construction of the six warehouses would be of the order of Rs. 30,000/-.

Bombay

There is a regulated market committee for coconut in operation at Sirsi. Another is proposed to be set up soon at Janjira. The Committee's financial assistance in providing warehousing facilities at the two markets has been sought. It would be enough to provide for a sum of Rs. 12,000 for the construction of a warehouse. The Government of India's share of cost for the construction of two warehouses at the two regulated markets handling coconuts would be Rs. 12,000/-.

XXII. Developments in Andamans and Saurashtra

Details regarding the items of development work proposed to be undertaken during the Second Five-Year Plan in those areas have not become available. A supplementary note about them will be submitted as soon as possible.

XXIII. Proposals for Strengthening the Staff of the Committee's Office

When the various proposals for coconut development under the Second Five-Year Plan are implemented the volume of work in all the sections of the office of the Committee is bound to increase. It is, therefore, proposed to increase the staff provided for the four Sections in the office as follows:—

General Section	2 Assistants & 1 Clerk
Account Section	1 Assistant & 1 Clerk
Statistical Section	1 Assistant & 1 Clerk
Publication Section	1 Sub-Editor, 1 Assistant, 2 Clerks and 3 Packers.

The cost on account of the above-mentioned additional staff for the five-year period will be as follows:-

	Pay	Dearness Allowance	House Rent Allowance
	Rs.	Rs.	Rs.
One Sub-Editor on Rs. 80-5-120-EB-8-200-10/2-220	5,400	3,000	24
Five Office Assistants each on Rs.80-5-120-EB-8-200-10/2-220	27,000	15,000	120
Five Clerks each on Rs. 55-3-85-EB-4-125-5-130	18,300	15,000	2,100
Three packers each on Rs. 30-½-35	5,580	7,200	900
Total	56,280	40,200	3,144

Rs. 99,624/- or

Rs. 1,00,000/- (round)

The entire expenditure of Rs. 1 lakh for the additional staff for the five-year period may be met by the Government of India.

The following statement gives the respective shares of the Government of India and the State Governments in respect of the different schemes proposed under Coconut Plan:-

Name of the scheme	Share of the Govt. of India	Share of the State Govt.
I. Central Coconut Research Station, Kasaragod.	11,70,340	
I. Central Coconut Research Station, Kayangulam.	5,24,240	
III. Coconut Nurseries		
Madras	59,390	49,140
Mysore	1,23,697	96,197
Andhra	28,162/8	16,162/8
Orissa	27,765	23,615
West Bengal	27,520	24,680
Laccadive Islands (Madras)	12,188	11,638
IV. Regional Coconut Research Stations		
Madras	25,656	4,84,756
Mysore	3,80,222	3,80,222
V. Organisation of demonstration plots		
Travancore-Cochin State	39,390	39,390
Madras	6,375	6,375
Andhra	5,650	5,650

Name of the scheme	Share of the Govt. of India	Share of the State Govt.
	Rs.	Rs.
Bombay	3,510	3,510
Orissa	2,775	2,775
Laccadive Islands	17,750	17,750
VI. Parasite Breeding Stations		
Madras	38,430	48,330
Andhra	40,140	49,540
Bombay	41,130	51,030
West Bengal	16,920	20,220
VII. Appointment of Coconut Propaganda and Development Officers.		
Coconut Propaganda Officers		
Madras	20,422	21,922
Andhra	20,422	21,922
Development Officer		
Travancore-Cochin	37,220	37,220
Coconut Propaganda-cum-Development Officers		
Mysore	81,620	91,220
Orissa	32,031	33,531
VIII. Plant Protection Work		
Travancore-Cochin	1,27,935	1,27,935
Mysore	32,680	32,680
IX. Organisation of Coconut Crop Competition in Mysore State	6,640	6,640
X. Celebration of Coconut Day	17,750	17,750
XI. Award of a prize for a dehusking machine for coconut	10,000	
XII. Appointment of a Marketing Officer	59,020	
XIII. An editor for the publications of the Committee	20,760	
XIV. Circulation promotion of Committee's Bulletin	27,040	
XV. Investigations into the cost of cultivation of coconut	43,000	
XVI. Estimation of area and yield statistics of coconut	58,800	

Name of the scheme	Share of the Govt. of India	Share of the State Govt.
	Rs.	Rs.
XVII. Assessment of results of the coconut schemes under the 2nd 5-year Plan	6,47,500	
XVIII. Co-operative Marketing		
Travancore-Cochin	32,100	32,100
Madras	2,13,513/12	2,13,513/12
Mysore	45,840	45,840
Andhra	71,171/4	71,171/4
Bombay	75,900	75,900
Orissa	26,317/8	26,317/8
XIX. Coconut Oil Crushing in chekkus	50,000	50,000
XX. Demonstration of preparation of copra & coconut oil in Orissa	7,000	
XXI. Establishment of warehouses		
Madras (Malabar)	5,00,000	5,00,000 (1)
Mysore	30,000	30,000
Andhra	30,000	30,000 (2)
Bombay	12,000	12,000
XXII. Schemes relating to Andamans and Saurashtra	To be furnished later.	
XXIII. Strengthening the staff of the Committee's Office	1,00,000	
Tentative Total	50,27,933	28,08,643

(1) Malabar Market Committee

(2) East Godavari Market Committee

The break-down of the expenditure to be borne by the various State Governments is given below:-

Travancore-Cochin State	2,51,645	0	0
Madras	13,66,924	12	0
Andhra	2,01,945	12	0
West Bengal	51,150	0	0
Orissa	68,873	8	0
Assam	5,500	0	0
Mysore	6,90,049	0	0
Bombay	172555	0	0
Total	28,08,643	0	0

ANNEXURE I

Details of the Coconut Scheme for inclusion in the 2nd Five-Year Plan and the estimates of expenditure for them.

The items of development work suggested may be classified as (a) short term and (b) long term. The short term measures aim at increasing the yield of existing coconut gardens by running demonstration plots to prove the efficacy of improved methods of cultivation by intensified propaganda and by providing an effective and extensive plant protection service. The long term measures include the development of coconut cultivation in the Andaman Islands by expanding the scope of the development scheme now being worked there, by starting coconut plantation in the Saurashtra and Kutch areas and by increasing the supply of quality coconut seedlings and starting Regional Coconut Research Stations in the States in which they have been recommended to be set up. The scheme also includes proposals for the correct estimation of area and yield statistics and the conversion of the Central Coconut Research Stations at Kasaragod and Kayangulam into National Research Institutes.

a) Short term measures :

(1) Demonstration Plots:—

Investigations have shown that the coconut palm responds to proper manuring and cultivation. Practical demonstration of this on coconut growers' own lands will go a long way to persuade them to adopt proper cultivation and manuring methods. It is proposed to start a large number of demonstration plots under the 2nd Five-Year Plan. The owners of plots in which demonstration plots will be located are proposed to be supplied with chemical manures such as ammonium sulphate, muriate of potash or potassium sulphate at subsidised price to induce the growers concerned to undertake the work. A sum of Rs. one lakh is estimated to be required for this purpose.

(2) Pest and Diseases Control:—

It is considered necessary to strengthen the existing Plant Protection Staff in the various States to control the pests and diseases of the coconut palm particularly in the Travancore-Cochin State where the leaf and root diseases are responsible for a considerable reduction in the yield of the coconut palms. The supervision of the demonstration plots for the purpose may be in the hands of the Plant Protection staff. A sum of Rs. 5 lakhs may be provided for the proposed strengthening of the Plant Protection staff during the 5-year period.

(3) Propaganda:—

A full time Coconut Development Officer may be provided for each coconut growing State having more than 50 000 acres under coconut. The States of Travancore-Cochin, Madras, Mysore and Andhra each will thus have a Coconut Development Officer. The Coconut Development Officer will have a Fieldman or two to assist him. The expenditure for the four States per annum is estimated to be Rs. 50,000/-. The total expenditure for the period of the 2nd Five-Year Plan will be of the order of Rs. 2½ lakhs.

b) Long term measures :

(1) Development of coconut cultivation in the Andamans:—

A 3-year scheme for the development of coconut cultivation in the Andamans is now being worked. It will expire in January, 1956. It is proposed to continue the scheme with increased scope during the Second Five-Year Plan period. The Coconut Development Officer who is at present assisted by two Field Assistants may be given more assistants and he will in conjunction with the Forest Department of the islands demarcate jungle land suitable for coconut cultivation and make arrangements for the marketing and processing of coconuts. Better progress can be achieved by allotting land for immigrant colonies for cultivation rather than by Government establishing coconut cultivation on plantation basis. It may be possible to start a mill in the islands for crushing copra. It is proposed to provide a sum of Rs. 5/- lakhs for this purpose.

(2) Development of Coconut Cultivation in Saurashtra and Kutch:—

The Oilseeds Specialist, Coimbatore, has stated that he had once been deputed to make a survey of lands suitable for coconut cultivation in the Saurashtra and Kutch areas and that it should be possible to bring about 10,000 acres in these areas under coconut. A sum of Rs. 10/- lakhs is proposed to be provided for this purpose.

(3) Supply of Quality Seedlings:—

The Committee is now financing along with State Governments coconut nurseries to distribute quality coconut seedlings among growers. The production target of the existing nurseries is, however, only 5 lakhs of seedlings per annum. Under the 2nd Five-Year Plan more nurseries are proposed to be started so that an additional 5 lakhs seedlings per annum may be produced during the plan period. A sum of Rs 12½ lakhs may be provided for the purpose.

Estimation of area and yield:

During the first year of the plan, assessment should be made by statistical methods of the yield at the commencement of the plan and thereafter assessments should be made during the 3rd, 4th and 5th years. The Central Government may take full responsibility for these statistical assessments. The cost of these may be estimated at Rs. 6½ lakhs.

National Research Institutes:

The Central Coconut Research Station at Kayangulam has adequate space in the laboratory building for accommodating more equipment and more research workers and there is a programme of construction of laboratory etc. for the Central Coconut Research Station Kasaragod. These two Stations may be converted into National Research Institutes. A sum of Rs. 10/- lakhs may be provided for the purpose.

The expenditure for the 5-year period of the Plan for the various items will be as follows:—

Item of work 1	Estimated Expenditure 2 Rs.
1. Demonstration centres	1,00,000
2. Pest and disease control	5,00,000
3. Propaganda	2,50,000
4. Development of coconut cultivation in Andaman Islands	5,00,000
5. Development of coconut cultivation in Saurashtra and Kutch.	10,00,000
6. Supply of quality seedlings.	12,50,000

7.	Correct estimation of area and yield statistics.	6,50,000
8.	Conversion of Central Coconut Research Station, Kasaragod, and Central Coconut Research Station, Kayangulam into National Research Institutes.	10,00,000
	Total	52,50,000

Of these, the expenditure for items (7) and (8) may have to be borne entirely by the Central Government and the expenditure for the rest shared equally between the respective States and Central Government. The total share of the Central Government will be of the order of Rs. 34½ lakhs.

The distribution of the balance amount among the different coconut growing States will be roughly as follows:—

Travancore-Cochin State	Rs.	7,74,000
Madras	Rs.	6,48,000
Andhra	Rs.	90,000
Mysore	Rs.	2,16,000
Bombay	Rs.	36,000
West Bengal	Rs.	18,000
Assam	Rs.	5,400
Orissa	Rs.	12,600
Total	Rs.	18,00,000

STATEMENT NO. I

Detailed estimates of the financial implications of the Scheme for the expansion of Research on Coconut—Central Coconut Research Station, Kasaragod (S. India)—under the Second Five-Year Plan

	I Year 1956-57 (1)	II Year 1957-58 (2)	III Year 1958-59 (3)	IV Year 1959-60 (4)	V Year 1960-61 (5)	Total (6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
PART A						
1. Botany & Breeding Section						
Staff—(a) Pay						
i) Coconut Botanist & Taxonomist (I) on Rs. 275–25–500–EB–30–EB-650–EB–30–800	3300	3600	3900	4200	4500	19500
ii) Junior Research Assistant (I) on Rs. 160–10–330	1920	2040	2160	2280	2400	10800
iii) Fieldman (I) on Rs. 55–3–85–EB–4–125 5–130	660	696	732	768	804	3660
Total Pay	5880	6336	7792	7248	7704	33960
(b) Dearness Allowance						
i) Coconut Botanist & Taxonomist (I)	780	780	840	840	840	4080
ii) Junior Research Assistant (I)	720	720	720	720	720	3600
iii) Fieldman (I)	600	600	600	600	600	3000
Total Dearness Allowance	2100	2100	2160	2160	2160	10680
Total Pay & Allowances	7980	8436	8952	9408	9864	44640
Total for Botany & Breeding Section	7980	8436	8952	9408	9864	44640

	(1)	(2)	(3)	(4)	(5)	(6)
2. Agronomy Section	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
i) Staff (a) Pay						
i) Additional cost due to upgrading of the post of Agronomist from Class II to Class I (Junior)	120	180	240	300	360	1200
ii) Farm Superintendent (1) on Rs. 250-10-300-15-450-25/2-500	3000	3120	3240	3360	3480	16200
iii) Junior Research Assistant on Rs. 160-10-330 (1 No.)	1920	2040	2160	2280	2400	10800
iv) Fieldman (1) on Rs. 55-3-85-EB-4-125-5-130	660	696	732	768	804	3660
Total Pay	5700	6036	6372	6708	7044	31860
(b) Dearness Allowance						
i) Upgrading of post of Agronomist						
ii) Farm Superintendent (1)	780	780	780	780	780	3900
iii) Junior Research Assistant (1)	720	720	720	720	720	3600
iv) Fieldman (1)	600	600	600	600	600	3000
Total Dearness Allowance	2100	2100	2100	2100	2100	10500
Total Pay & Allowances	7800	8136	8472	8808	9144	42360
ii) Other facilities						
a) Cost of 30 acres of land	30000					30000
b) Lay Out, fencing, etc.	10000					10000
c) Providing filter points and pump sets	5000					5000
Total Other facilities	45000					45000
Total for Agronomy Section	52800	8136	8472	8808	9144	87360

	(1)	(2)	(3)	(4)	(5)	(6)
3. Cyto-Anatomy Section	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Staff—(a) Pay						
i) Additional cost due to the upgrading of the post of Cyto-Anatomist from Class II to Class I (Junior)	120	180	240	300	360	1200
ii) Junior Research Assistant (1) on Rs. 160-10-330	1020	2040	2160	2280	2400	10800
iii) Laboratory Assistant (1) on Rs. 80–5–120–EB–8–200–10/2–220	960	1020	1050	1140	1200	5400
iv) Fieldman (1) on Rs. 55–3–85–EB–4–125–5–130	660	696	732	768	804	3660
v) Laboratory Attender (1) on Rs. 30–½–35	360	366	372	378	384	1860
Total Pay	4020	4302	4584	4866	5148	22920
(b) Dearness Allowance						
i) Upgrading of post of Cyto-Anatomist						
ii) Junior Research Assistant (1)	720	720	720	720	720	3600
iii) Laboratory Assistant (1)	600	600	600	600	600	3000
iv) Fieldman (1)	600	600	600	600	600	3000
v) Laboratory Attender (1)	480	480	480	480	480	2400
Total Dearness Allowance	2400	2400	2400	2400	2400	12000
Total Pay & Allowances	6420	6702	6984	7266	7548	34920
Total for Cyto-Anatomy Section	6420	6702	6984	7266	7548	34920
4. Chemistry Section						
i) Staff—(a) Pay						
i) Additional cost due to upgrading of the post of Analytical Chemist from Class II to Class I (Junior)	120	180	240	300	360	1200
ii) Junior Research Assistants (2) on Rs. 160–10–330	3840	4080	4320	4560	4800	21600
iii) Laboratory Attenders (2) on Rs. 30–½–35	720	732	744	756	768	3720
Total Pay	4680	4992	5304	5616	5928	26520

	(1)	(2)	(3)	(4)	(5)	(6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
(b) Dearness Allowance						
i) *Upgrading of the post of Analytical Chemist						
ii) Junior Research Assistants (2)	1440	1440	1440	1440	1440	7200
iii) Laboratory Attenders (2)	960	960	960	960	960	4800
Total Dearness Allowance	2400	2400	2400	2400	2400	12000
Total Pay & Allowances	7080	7392	7704	8016	8328	38520
ii) Laboratory Equipment	10000					10000
Total for Chemistry Section	17080	7392	7704	8016	8328	48520

PART B

1. Coconut Survey Work

	(1)	(2)	(3)	(4)	(5)	(6)
Staff—(a) Pay						
i) Jonior Research Assistant (1) on Rs. 160-10-330	1920	2040	2160	2280	2400	10800
ii) Fieldman (1) on Rs. 55-3-85-EB-4-125-5-130	660	696	732	768	804	3660
Total Pay	2580	2736	2892	3048	3204	14460
(b) Dearness Allowance						
i) Junior Research Assistant (1)	720	720	720	720	720	3600
ii) Fieldman (1)	600	600	600	600	600	3000
Total Dearness Allowance	1320	1320	1320	1320	1320	6600
(c) Travelling Allowance	400	400	400	400	400	2000
Total Pay and Allowances	4300	4456	4612	4768	4924	23060
Total for Coconut Survey Work	4300	4456	4612	4768	4924	23060

2. Soil Survey Work

Staff—(a) Pay						
i) Soil Survey Officer (1) on Rs. 250-10-300-15-450-25/2-500	3000	3120	3240	3360	3480	16200
ii) Junior Research Assistant (1) on Rs. 160-10-330	1920	2040	2160	2280	2400	10800
ii) Laboratory Attender (1) on Rs. 30-½-35	360	366	372	378	384	1860
v) Peon (1) on Rs. 30-½-35	360	366	372	378	384	1860
v) Motor Driver (1) on Rs. 55-3-85-EB-4-125-5-130	660	696	732	768	804	3660
Total Pay	6300	6588	6876	7164	7452	34380
(b) Dearness Allowance						
i) Soil Survey Officer (1)	780	780	780	780	780	3900
ii) Junior Research Assistant (1)	720	720	720	720	720	3600
iii) Laboratory Attender (1)	480	480	480	480	480	2400
iv) Peon (1)	480	480	480	480	480	2400
v) Motor Driver (1)	600	600	600	600	600	3000
Total Dearness Allowance	3060	3060	3060	3060	3060	15300
(c) Travelling Allowance	2000	2000	2000	2000	2000	10000
Total Pay and Allowances	11360	11648	11936	12224	12512	59680
ii) Equipment						
a) Mobile Van	20000					20000
b) Laboratory Equipment	15000					15000
Total Equipment	35000					35000
iii) Contingencies	2000	2000	2000	2000	2000	10000
Total for Soil Survey Work	13360	13648	13936	14224	14512	104680

	(1)	(2)	(3)	(4)	(5)	(6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
3. Coconut Technology						
Recurring Expenditure						
(a) Staff salary						
i) Technological Chemist (1) on Rs. 450–50–750	5400	6000	6600	7200	7800	33000
ii) Two Research Officers on Rs. 275–25–500–30–650–30-800	6600	7200	7800	8400	9000	39000
iii) Three Senior Research Assistants on Rs. 250–10–300–15–450–25–500	9000	9360	9720	10080	10440	48600
iv) Three Junior Research Assistants on Rs. 160-10-330	5760	6120	6480	6840	7200	32400
v) Three Laboratory Assistants on Rs. 55-3-85-EB-4-125-5-130	1980	2088	2196	2304	2412	10980
vi) One Assistant on Rs. 80-5-120-EB-8-200-10/2-220	960	1020	1080	1140	1200	5400
vii) One Clerk-Typist on Rs. 55-3-85-EB-4-125-5-130	660	696	732	768	804	3660
viii) One Store-keeper -do-	660	696	732	768	804	3660
ix) One Daffadar on Rs. 35-1-50	420	432	444	456	468	2220
x) Three Peons on Rs. 30-½-35	1080	1098	1116	1134	1152	5580
xi) One Watchman -do-	360	366	372	378	384	1860
Total	32880	35076	37272	39468	41664	186360
(b) Allowances						
(i) Travelling Allowance	3000	3000	3000	3000	3000	15000
(ii) Dearness Allowance	12900	12900	13200	13200	13200	65400
Total	15900	15900	16200	16200	16200	80400

	(1)	(2)	(3)	(4)	(5)	(6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Contingencies						
i) Apparatus & Chemicals	10000	10000	10000	10000	10000	50000
i) Library Books & Periodicals	1000	1000	1000	1000	1000	5000
ii) Office Contingencies	2000	2000	2000	2000	2000	10000
v) Petty Constructions etc.	2000	2000	2000	2000	2000	10000
v) Miscellaneous charges	1000	1000	1000	1000	1000	5000
Total	16000	16000	16000	16000	16000	80000
Total Recurring Expenditure	64780	66976	69472	71668	73864	346760
Non-recurring Expenditure						
i) Pilot Plant Machinery etc.	150000					150000
ii) Laboratory Building, Equipment and Residential Quarters	100000					100000
Total Non-recurring Expenditure	250000					250000
Total for Coconut Technology	314780	66976	69472	71668	73864	596760
4. Statistical Work						
i) Staff—(a) Pay						
i) Statistician (1) on Rs. 250-10-300-15-450-25/2-500	3000	3120	3240	3360	3480	16200
ii) Computor (1) on Rs. 80-5-120-EB-8-200-10/2-220	960	1020	1080	1140	1200	5400
iii) Peon (1) on Rs. 30-½-35	360	366	372	378	384	1860
Total Pay	4320	4506	4692	4878	5064	23460

	(1)	(2)	(3)	(4)	(5)	(6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
(b) Dearness Allowance						
i) Statistician (1)	780	780	780	780	780	3900
ii) Computor (1)	600	600	600	600	600	3000
iii) Peon (1)	480	480	480	480	480	2400
Total Dearness Allowance	1860	1860	1860	1860	1860	9300
Total Pay & Allowances	6180	6366	6552	6738	6924	32760
ii) Equipment						
Calculating Machine with ancillary equipment	5000					5000
Total for Statistical work	11180	6366	6552	6738	6924	37760
5. Agricultural Meteorology & Crop Weather Observation						
Staff—(a) Pay						
i) Junior Research Assistant (1) on Rs. 160-10-330	1920	2040	2160	2280	2400	10800
ii) Fieldman (1) on Rs. 55-3-85-EB-4-125-5-130	660	696	732	768	804	3660
Total Pay	2580	2736	2892	3048	3204	14460
(b) Dearness Allowance						
i) Junior Research Assistant (1)	720	720	720	720	720	3600
ii) Fieldman (1)	600	600	600	600	600	3000
Total Dearness Allowance	1320	1320	1320	1320	1320	6600
Total Pay & Allowances	3900	4056	4212	4368	4524	21060
Total for Agricultural Meteorology	3900	4056	4212	4368	4524	21060

	(1)	(2)	(3)	(4)	(5)	(6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
. Library						
Staff (a) Pay						
) Librarian (1) on Rs. 80-5-120-EB-8-200-10/2-220	960	1020	1080	1140	1200	5400
) Library Attender (1) on Rs. 30-½-35	360	366	372	378	384	1860
Total Pay	1320	1386	1452	1518	1584	7260
(b) Dearness Allowance						
i) Librarian (1)	600	600	600	600	600	3000
ii) Library Attender (1)	480	480	480	480	480	2400
Total Dearness Allowance	1080	1080	1080	1080	1080	5400
Total Pay & Allowances	2400	2466	2532	2598	2664	12660
ii) Equipment (Almirahs, racks, etc.)	5500					5500
Total for Library	7900	2466	2532	2598	2664	18160

PART C

	(1)	(2)	(3)	(4)	(5)	(6)
1. Station Wagon						
i) Cost of Station Wagon	20000					20000
ii) Staff—(a) Pay						
i) Driver (1) on Rs. 55–3–85–EB–4–125–5–130	660	696	732	768	804	3660
ii) Cleaner (1) on Rs. 30-½-35	360	366	372	378	384	1860
Total Pay	1020	1062	1104	1146	1188	5520

	(1)	(2)	(3)	(4)	(5)	(6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
(b) Dearness Allowance						
i) Driver (1)	600	600	600	600	600	3000
ii) Cleaner (1)	480	480	480	480	480	2400
Total Dearness Allowance	1080	1080	1080	1080	1080	5400
Total Pay and Allowances	2100	2142	2184	2226	2268	10920
iii) Contingencies	1000	1000	1000	1000	1000	5000
Total for Station Waggon	23100	3142	3184	3226	3268	35920
2. Total for Hostel	30000					30000
3. Total for Glass House	50000					50000
4. Administration						
i) Staff—(a) Pay						
i) Office Assistant (1) on Rs. 80-5-120-EB-8-200-10/2-220	960	1020	1080	1140	1200	5400
ii) Clerk (1) on Rs. 55-3-85-EB-4-125-5-130	660	696	732	768	804	3660
iii) Typist (1) -do-	660	696	732	768	804	3660
iv) Peons (3) on Rs. 30-½-35	1080	1098	1116	1134	1152	5580
Total Pay	3360	3510	3660	3810	3960	18300
(b) Dearness Allowance						
i) Office Assistant (1)	600	600	600	600	600	3000
ii) Clerk (1)	600	600	600	600	600	3000
iii) Typist (1)	600	600	600	600	600	3000
iv) Peons (3)	1440	1440	1440	1440	1440	7200
Total Dearness Allowance	3240	3240	3240	3240	3240	16200
Total Pay and Allowances	6600	6750	6900	7050	7200	34500
ii) Office Equipment (Typewriter & Duplicator)	3000					3000
Total for Administration	9600	6750	6900	7050	7200	37500
GRAND TOTAL FOR A, B & C	587400	138526	143512	148138	152764	1170340

STATEMENT NO. 2

Central Coconut Research Station, Kayangulam—Proposals for Second Five-Year Plan

	I Year 1956-57 (1)	II Year 1957-58 (2)	III Year 1958-59 (3)	IV Year 1959-60 (4)	V Year 1960-61 (5)	Total (6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
PART I						
I. General						
1. Acquisition of 10 acres of land for extension of Research Station	40000					40000
2. New Constructions						
a) Insect proof Glass House	30000					30000
b) Insectary for Entomological Section	6000					6000
c) Pot Culture House	6000					6000
Total for New Constructions	42000					42000
3. Van or Lorry						
i) Cost of van or lorry	20000					20000
ii) Staff—(a) Pay						
(1) Driver (1) on Rs. 55-3-85-EB-4-125-5-130	660	696	732	768	804	3660
(2) Cleaner (1) on Rs. 30-½-35	360	366	372	378	384	1860
Total Pay	1020	1062	1104	1146	1188	5520

	(1)	(2)	(3)	(4)	(5)	(6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
(b) Dearness Allowance						
i) Driver (1)	600	600	600	600	600	3000
ii) Cleaner (1)	480	480	480	480	480	2400
Total Dearness Allowance	1080	1080	1080	1080	1080	5400
Total Pay and Allowance	2100	2142	2184	2226	2268	10920
iii) Contingencies	1000	1000	1000	1000	1000	5000
Total for Van or Lorry	23100	3142	3184	3226	3268	35920
Total I. General	105100	3142	3184	3226	3268	117920

II. RESEARCH

(a) Entomology Section

(i) Insecticidal control of the Rhinoceros beetle Recurring Expenditure

	(1)	(2)	(3)	(4)	(5)	(6)
i) Staff—(a) Pay						
Junior Research Assistant (1) on Rs. 160-10-330	1920	2040	2160	2280	2400	10800
Fieldmen (2) on Rs. 55-3-85-EB-4-125-5-130	1320	1392	1464	1536	1608	7320
Total Pay	3240	3432	3624	3816	4008	18120
(b) Dearness Allowance						
Junior Research Assistant (1)	720	720	720	720	720	3600
Fieldmen (2)	1200	1200	1200	1200	1200	6000
Total Dearness Allowance	1920	1920	1920	1920	1920	9600
Total Pay & Allowance	5160	5352	5544	5736	5928	27720

	(1)	(2)	(3)	(4)	(5)	(6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
i) Miscellaneous expenditure	7000	1945	1945	1945	1945	14780
Total Recurring Expenditure	12160	7297	7489	7681	7873	42500
Non-recurring Expenditure	500					500
Total-Insecticidal control of Rhinoceros beetle	12660	7297	7489	7681	7873	43000
(2) Ecological studies of *Nephantis serinopa*						
Recurring Expenditure						
i) Staff—(a) Pay						
Senior Research Assistant (1) on Rs. 250-10-300-15-450-25/2-500	3000	3120	3240	3360	3480	16200
Fieldmen (2) on Rs. 55-3-85-EB-4-125-5-130	1320	1392	1464	1536	1608	7320
Total Pay	4320	4512	3704	4896	5088	23520
b) Dearness Allowance						
Senior Research Assistant (1)	720	720	720	720	720	3600
Fieldmen (2)	1200	1200	1200	1200	1200	6000
Total Dearness Allowance	1920	1920	1920	1920	1920	9600
Total Pay & Allowance	6240	6432	6624	6816	7008	33120
(ii) Miscellaneous Expenditure	5260	5305	5305	5305	5305	26480
Total Recurring Expenditure	11500	11737	11929	12121	12313	59600
Non-recurring Expenditure	1000					1000
Total-Ecological studies of *Nephantis serinopa*	12500	11737	11929	12121	12313	60600
Total-Entomology Section	25160	19034	19418	19802	20186	103600

	(1)	(2)	(3)	(4)	(5)	(6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
(b) Plant Pathology						
1) Virus Investigation						
Recurring Expenditure						
i) Staff—(a) Pay						
Assistant Virus Pathologist (1) on Rs. 275-25-500-EB-30-650-EB-30-800	3300	3600	3900	4200	4400	19500
Research Assistant (1) on Rs. 80-5-120-EB-8-200-10/2-220	960	1020	1080	1140	1200	5400
Fieldman (1) on Rs. 55-3-85-EB-4-125-5-130	660	696	732	768	804	3660
Laboratory Attender (1) on Rs. 30-½-35	360	366	372	378	384	1860
Total Pay	5280	5682	6084	6486	6888	30420
(b) Dearness Allowance						
Assistant Virus Pathologist (1)	780	780	840	840	840	4080
Research Assistant (1)	600	600	600	600	600	3000
Fieldman (1)	600	600	600	600	600	3000
Laboratory Attender (1)	480	480	480	480	480	2400
Total Dearness Allowance	2460	2460	2520	2520	2520	12480
Total Pay and Allowance	7740	8142	8604	9006	9408	42900
(ii) Miscellaneous Expenditure	4200	6725	6725	6725	6725	31100
Total Recurring Expenditure	11940	14867	15329	15731	16133	74000
Non-recurring Expenditure	1000					1000
Total Virus Investigation	12940	14867	15321	15731	16133	75000

(2) Studies on Microflora of coconut soils

Recurring Expenditure

	(1)	(2)	(3)	(4)	(5)	(6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
) Staff—(a) Pay						
Senior Research Assistant (1) on Rs. 250-10-300-15-450-25/2-500	3000	3120	3240	3360	3480	16200
Laboratory Assistant (1) 55-3-85-EB-4-125-5-130	660	696	732	768	804	3660
Fieldman (1) -do-	660	696	732	768	804	3660
Total Pay	4320	4512	4704	4896	5088	23520
(b) Dearness Allowance						
Senior Research Assistant (1)	780	780	780	780	780	3900
Fieldman (1)	600	600	600	600	600	3000
Laboratory Assistant (1)	600	600	600	600	600	3000
Total Dearness Allowance	1980	1980	1980	1980	1980	9900
Total Pay and Allowance	6300	6492	6684	6876	7068	33420
(ii) Miscellaneous Expenditure	3700	3220	3220	3220	3220	16580
Total Recurring Expenditure	10000	9712	9904	10096	10288	50000
Non-recurring Expenditure	5000					5000
Total—Studies on Microflora of coconut soils	15000	9712	9904	10096	10288	55000
Total—Plant Pathology	27940	24579	25233	25827	26421	130000

	(1)	(2)	(3)	(4)	(5)	(6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
(c) Plant Physiology						
Studies on the physiology of nutrition in coconut Recurring Expenditure						
i) Staff—(a) Pay						
Senior Research Assistant (1) on Rs. 250-10-300-15-450-25/2-500	3000	3120	3240	3360	3480	16200
Research Assistants (2) on Rs. 80-5-120-EB-8-200-10/2-220	1920	2040	2160	2280	2400	10800
Fieldman (1) on Rs. 55-3-85-EB-4-125-5-130	660	696	732	768	804	3660
Laboratory Attenders (2) on Rs. 30-½-35	720	732	744	756	768	3720
Total Pay	6300	6588	6876	7164	7452	34380
(b) Dearness Allowance						
Senior Research Assistant (1)	780	780	780	780	780	3900
Research Assistants (2)	1200	1200	1200	1200	1200	6000
Fieldman (1)	600	600	600	600	600	3000
Laboratory Attenders (2)	960	960	960	960	960	4800
Total Dearness Allowance	3540	3540	3540	3540	3540	17700
Total Pay and Allowance	9840	10128	10416	10704	10992	52080
(ii) Miscellaneous expenditure	900	3505	3505	3505	3505	14920
Total Recurring Expenditure	10740	13633	13921	14209	14497	67000
Non-recurring Expenditure	4500	500				5000
Total—Plant Physiology	15240	14133	13921	14209	14497	72000

	(1)	(2)	(3)	(4)	(5)	(6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
d) Soil Chemistry						
Collection of comparative analytical data on soil and plant material from healthy and diseased coconut areas						
Recurring Expenditure						
i) Staff—(a) Pay						
Research Assistants (2) on Rs. 80-5-120-EB-8-200-10/2-220	1920	2040	2160	2280	2400	10800
Laboratory Assistants (2) on Rs. 55–3–85–EB–4–125–5·130	1320	1392	1464	1536	1608	7320
Laboratory Attenders (2) on Rs. 30-½-35	720	732	744	756	768	3720
Peon (1) on Rs. 30–½–35	360	366	372	378	384	1860
Total Pay	4320	4530	4740	4950	5160	23700
(b) Dearness Allowance						
Research Assistants (2)	1200	1200	1200	1200	1200	6000
Laboratory Assistants (2)	1200	1200	1200	1200	1200	6000
Laboratory Attenders (2)	960	960	960	960	960	4800
Peon (1)	480	480	480	480	480	2400
Total Dearness Allowance	3840	3840	3840	3840	3840	19200
Total Pay & Allowance	8160	8370	8580	8790	9000	42900
(ii) Miscellaneous Expenditure	4600	4125	4125	4125	4125	21100
Total Recurring Expenditure	12760	12495	12705	12915	13125	64000
Non-recurring Expenditure	15000					15000
Total Soil Chemistry	27760	12495	12705	12915	13125	79000
Total II. Research	96100	70241	71277	72753	74229	384600

	(1) Rs.	(2) Rs.	(3) Rs.	(4) Rs.	(5) Rs.	(6) Rs.
III. Administrative						
i) Staff—(a) Pay						
Office Assistant (1) on Rs. 80–5–120–EB–8–200–10/2–220	960	1020	1080	1140	1200	5400
Clerk (1) on Rs. 55-3-85-EB-4-125-5-130	660	696	732	768	804	3660
Typist (1) -do-	660	696	732	768	804	3660
Total Pay	2280	2412	2544	2676	2808	12720
(b) Dearness Allowance						
Office Assistant (1)	600	600	600	600	600	3000
Clerk (1)	600	600	600	600	600	3000
Typist (1)	600	600	600	600	600	3000
Total Dearness Allowance	1800	1800	1800	1800	1800	9000
Total-III. Administrative	4080	4212	4344	4476	4608	21720
GRAND TOTAL I, II & III	205280	77595	78805	80455	82105	524240

STATEMENT NO. 3

Financial Statement of expenses and receipts relating to the establishment of 5 coconut nurseries in Madras State.

Statement relating to one coconut nursery.

	I Year 1956-57 (1)	II Year 1957-58 (2)	III Year 1958-59 (3)	IV Year 1959-60 (4)	V Year 1960-61 (5)	Total (6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1. Expenses—Recurring (for one coconut nursery)						
a) Pay of Staff						
One Assistant on Rs. 100-5-140-EB-10-220	1200	1260	1320	1380	1440	6600
One Fieldman on Rs. 45-2-55-1-60	540	564	588	612	636	2940
One Maistry on Rs. 20-1-30	240	252	264	276	288	1320
One Peon on Rs. 16-1-25	192	198	204	210	216	1020
Total	2172	2274	2376	2478	2580	11880
b) Allowances						
Assistant at 17% plus Rs. 18	288	312	324	336	348	1608
Fieldman at Rs. 22	264	264	264	264	264	1320
Maistry at Rs. 18	216	228	228	228	228	1128
Peon at Rs. 18	216	216	216	216	216	1080
Total	984	1020	1032	1044	1056	5136
c) Travelling allowance	500	500	500	500	200	2200

	(1)	(2)	(3)	(4)	(5)		(6)
	Rs.	Rs.	Rs.	Rs.	Rs.		Rs.
2. Other charges							
Lease amount for one acre land at Rs. 200 per acre	200	200	200	200	200		1000
Rent for combined office and stores	300	300	300	300	300		1500
Cost of 8000 seednuts at Rs. 225/- per 1000	1800	1800	1800	1800			7200
Harvesting, packing and transporting charges.	400	400	400	400			1600
Gunnies for packing seednuts	150		150				300
Preparing nursery area by carting sand	500	500	50	50			1100
Planting seednuts, watering, weeding etc.	200	500	500	500	200		1900
Removing seedlings, packing and transporting		500	500	500	500		2000
Railway freight on seedlings to be prepaid		750	750	750	750		3000
Mud pots, buckets etc.	50	50	20	20			140
Putting up temporary sheds, fencing etc.	250	50	50	50			400
Office Contingencies, Stationery, Service postage, furniture.	200	50	50	50			350
Miscellaneous.	50	50	50	50	50		250
Total	4100	5150	4820	4670	2000		20740
Grand total expenditure (One Coconut Nursery)	7756	8944	8728	8692	5836		39956
Receipts. (One coconut nursery)						VI Year	
By sale of 6,000 seedlings at 8 as. each		3000	3000	3000	3000	3000	15000
By sale of ungerminated nuts and used gunnies	50	50	50	50	50		250
By recovery of railway freight		750	750	750	750		3000
Total	50	3800	3800	3800	3800	3000	18250

Expenditure

	Rs	Rs
Total Expenditure (one nursery)		39956
Deduct		
Railway freight prepaid	3000	
Lease amount	1000	4000
Amount to be shared equally between the State Government and the Central Government for one coconut nursery.		35956
Share of the Central Government		17978
Share of the State Government	17978	
Plus railway freight prepaid	3000	
Plus lease amount	1000	21978
Share of the Central Government for 5 nurseries	17978 x 5	89890
Share of the State Government for 5 nurseries	21978 x 5	109990

Receipts

Total receipts from the Scheme (one nursery)		18250
Railway freight (prepaid) recovered		3000
Receipt to be shared between the State Government and the Central Government on a 60 : 40 basis.		15250
Share of the Central Government 40% (one nursery)		6100
Share of the State Government 60%		9150
Plus railway freight prepaid		3000
		12150
Share of the Central Government for 5 coconut nurseries.	6100 x 5	30500
Share of the State Government for 5 coconut nurseries.	19150 x 5	60750
Net expenditure to Central Government for 5 coconut nurseries.		59390
Net expenditure to State Government for 5 coconut nurseries.		49140

STATEMENT NO. 4

Cost of additional coconut nurseries in Mysore.

Cost of a nursery with a target of 10000 seedlings.

	I Year (1)	II Year (2)	III Year (3)	IV Year (4)	V Year (5)	Total (6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1. Pay of Establishment						
a) One Assistant Botanist on Rs. 100-10-200	1200	1320	1440	1560	1680	7200
b) One Fieldman on Rs. 40-2-60	480	504	528	552	576	2640
c) One Peon on Rs. 18-½-22.	162	216	222	228	234	1062
2. Allowances						
a) Dearness Allowance	780	780	780	780	780	3900
b) Conveyance Allowance	180	180	180	180	180	900
c) Travelling Allowance	500	500	500	500	500	2500
3. Other charges						
a) Cost of 15000 seednuts	4125	4125	4125	4125	4125	20625
b) Labour	3000	3000	3000	3000	3000	15000
c) Packing & Transport of seednuts	960	960	960	960	960	4800
d) Contingencies	200	200	200	200	200	1000
e) Cost of manure and sand	300	300	300	300	300	1500
TOTAL						61127

	(1)	(2)	(3)	(4)	(5)	(6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts						25000
Government of India's share of expenditure						30563-8
Government of India's share of receipts						10000
Net cost to the Government of India						20563-8
State Government's share of expenditure						30563—8—0
State Government's share of receipts						15000—0—0
Net cost to Government						15563—8—0
Net cost to the Government of India for running 4 nurseries						82254—0—0
Net cost to Government of Mysore						62254—0—0

B. Cost of nursery with a target of 7,500 seedlings.

	(1)	(2)	(3)	(4)	(5)	(6)
1. Pay of Establishment						
a) One Assistant Botanist	1200	1320	1440	1560	1680	7200
b) One Fieldman	480	504	528	552	576	2640
c) One Peon	162	216	222	228	234	1062
2. Allowances						
a) Travelling allowance	300	300	300	300	300	1500
b) Dearness allowance	780	780	780	780	780	3900
c) Conveyance allowance	180	180	180	180	180	900
3. Other charges						
a) Cost of 11250 seednuts (Including transport)	3250	3250	3250	3250	3250	16250
b) Manure, sand etc.	250	250	250	250	250	1250
c) Labour	2500	2500	2500	2500	2500	12500
d) Contingencies	200	200	200	200	200	1000

	(1)	(2)	(3)	(4)	(5)	(6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Total recurring expenditure						48202
Receipts						18750
Government of India's share of expenditure						24101
Government of India's share of receipts						7500
Net cost to Government of India						16601
State Governments's share of expenditure						24101
State Government's share of receipts						11250
Net cost to State Government						12851
Net cost to Government of India for 2 nurseries						33202
Net cost to State Government for 2 nurseries						25702

Expenditure for an additional Assistant Botanist, a clerk and a peon.

	(1)	(2)	(3)	(4)	(5)	(6)
Pay						
One Assistant Botanist on Rs. 100-10-200	1200	1320	1440	1560	1680	7200
One clerk on Rs. 40–2–50–3–80	480	504	528	552	576	2640
One peon on Rs. 18–½–22	162	216	222	228	234	1062
Allowances						
Dearness allowance	816	816	816	816	816	4080
Travelling allowance	300	300	300	300	300	1500
TOTAL						16482
Government of India's share						8241
Government of Mysore's share						8241

STATEMENT NO. 5

timate of expenditure for running a 5-year Coconut Nursery with an annual target production of 7500 seedlings in Andhra State

	I Year 1956-57 (1)	II Year 1957-58 (2)	III Year 1958-59 (3)	IV Year 1959-60 (4)	V Year 1960-61 (5)	Total (6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Pay of Establishment						
One Assistant on Rs. 100-5-140-EB-10-220	1200	1260	1320	1380	1440	6600
One Maistry on Rs. 20-1-30	240	252	264	276	288	1320
. Dearness Allowance						
One Assistant	288	316/8	327	337/8	348	1617
One Maistry	216	228	228	228	228	1128
3. Travelling Allowance to staff	350	350	350	350	350	1750
4. Cost of 10000 seednuts at Rs, 200/- per 1000 nuts	2000	2000	2000	2000	2000	10000
5. Harvesting etc. of seednuts at Rs. 50/- per 1000 nuts	500	500	500	500	500	2500
6. Purchase of gunnies	450					450
Repairs to gunnies		10	10	10	10	40
7. Preparing nursery beds						
Cost of 1000 tons of sand at Rs. 2/- per ton	2000					2000
Levelling and fencing	200	100	50	50	50	450
8. Planting nuts at Re. 0-12-0 per 100 nuts	75	75	75	75	75	375
Hand watering	220	220	220	220	220	1100
Irrigation with pumpsets	240	240	240	240	240	1200
Wages of watchman at Re. 1/- per day	365	365	365	365	365	1825
Weeding, general cleaning and spraying	100	100	100	100	100	500
9. Implements etc.						
15 buckets at Rs. 3/- each	45					45
4 sickles at Rs. 0-12-0 each	3					3
4 hand hoes	2					2
Repair charges of buckets		5	5	5	5	20

	(1)	(2)	(3)	(4)	(5)	(6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
10. Temporary thatched sheds etc.						
4 teak beams at Rs. 12/- each	48					48
10 Godasi beams at Rs. 6/- each	60					60
450 bamboos at Rs. 40/ per 100	180					180
1200 palmyrah leaves at Rs. 6/- per 100	72					72
Labour charges	60					60
Raising fence etc.	50	50	50	50	50	250
11. Office Contingencies						
Service Postage etc.	100	100	100	100	100	500
Kerosene oil	36	36	36	36	36	180
12. Miscellaneous—unforeseen items of expenditure	100	100	100	100	100	500
Total						34775
Receipts						
1. Cost of coconut seedlings at Re. 0-8-0 each	3750	3750	3750	3750	3750	18750
2. Miscellaneous items like sale proceeds of ungerminated seednuts	250	250	250	250	250	1250
Total						20000

State Government's share of expenditure (50%)	Rs.	17387	8	0
Government of India's share (50%)	Rs.	17387	8	0
State Government's share of receipts (60%)	Rs.	12000	0	0
Government of India's share of receipts (40%)	Rs.	8000	0	0
Net cost to the State Government for 5 years	Rs.	5387	8	0
Net cost to the Government of India for 5 years	Rs.	9387	8	0
Cost to the State Government for running three nurseries	Rs.	16162	8	0
Cost to the Government of India for running three nurseries	Rs.	28162	8	0

STATEMENT NO. 6

(A) Cost of a coconut nursery at Ganjam in Orissa with a target of 5000 seedlings.

	I Year (1)	II Year (2)	III Year (3)	IV Year (4)	V Year (5)	Total (6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
ay of Establishment						
) One Coconut Supervisor on Rs. 155-5-160-10-220 EB-10/2-250	1860	1920	1980	2040	3000	10800
b) One Fieldman on Rs. 30-1-39	360	372	384	396	408	1920
c) One Peon on Rs. 18-1-24	216	222	228	234	240	1140
Total Pay	2436	2514	2592	2670	3648	13860
Allowances						
a) Travelling allowance	250	250	250	250	250	1250
b) Dearness allowance	1150	1150	1150	1150	1150	5750
	1400	1400	1400	1400	1400	7000
Contingencies						
a) Preparation of seed bed	300	300	300	300	300	1500
b) Cost of 7500 seednuts	1700	1700	1700	1700	1700	8500
c) Incidental charges	200	200	200	200	200	1000
d) Nursery expenses	2000	2000	2000	2000	2000	10000
e) Miscellaneous contingencies	150	150	150	150	150	750
Total contingencies	4350	4350	4350	4350	4350	21750
Grand Total	8186	8264	8342	8420	9398	42610

	(1)	(2)	(3)	(4)	(5)	(6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Total receipts						13000
Government of India's share of expenditure						21305
Government of India's share of receipts						5200
Net cost to Government of India						16105
State Government's share of expenditure						21305
State Government's share of receipts						7800
Net expenditure to the State Government						13505

Cost of a coconut nursery with an annual target of 3000 seedlings attached to the Regional Coc. Research Station

	(1)	(2)	(3)	(4)	(5)	(6)
i) Pay of Establishment						
One Fieldman on Rs. 30–1–39	360	372	384	396	408	1920
ii) Allowances:						
a) Travelling allowance	200	200	200	200	200	1000
b) Dearness allowance	250	250	250	250	250	1250
iii) Contingencies						
a) Preparation of seed beds	200	200	200	200	200	1000
b) Cost of 4,500 seednuts	1050	1050	1050	1050	1050	5250
c) Incidental charges	120	120	120	120	120	600
d) Nursery expenses	1200	2400	3600	3600	3600	14400
e) Miscellaneous contingencies	100	100	100	100	100	500
						25920
Total receipts						7750
Government of India's share of expenditure						14760
Government of India's share of receipts						3100
Net cost to the Government of India						11660
State Government's share of expenditure						14760
State Government's share of receipts						4650
Net expenditure to State Government						10110

STATEMENT NO. 7

Statement of expenditure for the establishment of two [illegible] nurseries in West Bengal

Expenditure for one Nursery.

	I Year 1956-57 (1)	II Year 1957-58 (2)	III Year 1958-59 (3)	IV Year 1959-60 (4)	V Year 1960-61 (5)	Total (6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1. Non-recurring						
Furniture	100					100
Total non-recurring	100					100
2. Recurring:						
Pay of establishment						
Field Assistant (1) on Rs. 90-4-110	1080	1128	1176	1224	1272	5880
Chowkidar (1) on Rs. 20-1-25.	240	240	240	240	252	1212
Allowances & Honoraria						
Dearness allowance	720	720	720	720	720	3600
Cash or additional dearness allowance at option	144	144	144	144	144	720
House rent allowance	108	113	118	123	128	590
Travelling allowance	500	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Contingencies						
Preparation of land bed	250	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nursery expenses	1000	1200	1100	1100	1000	[illegible]
Cost of [illegible] to raise 1000 seedlings	1500	1500	1500	1500	1500	7500
Incidental charges including transport, freight etc. and cost of fencing	400	400	300	300	300	1700
Office contingencies	115	100	90	80	75	460
Grand total for one Nursery	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
					[illegible]	[illegible]

		(1)	(2)	(3)	(4)	(5)		(6)
		Rs.	Rs.	Rs.	Rs.	Rs.		Rs.
Total for one Nursery for 5 years								
Non-recurring								100
Recurring								33600
	Total							33700
Total for two Nurseries for 5 years								
Non-recurring								200
Recurring								67200
	Total							67400
Share of the Government of India								33600
Share of the State Government								33800
	Total							67400
Receipts from one Nursery							VI Year	
Sale proceeds of ungerminated seednuts		20	20	20	20	20		100
Sale proceeds of seedlings			1500	1500	1500	1500	1500	7500
	Total	20	1520	1520	1520	1520	1500	7600
Total receipts from two Nurseries								15200
Share of the Government of India								6080
Share of State Government								9120
Net expenditure to Government of India								27520
Net expenditure to the State Government								24680

STATEMENT NO. 8

Statement of expenditure and receipts for two Regional Coconut Research Stations for a period of five years in Madras State

Cost for one Station

A. NON-RECURRING:

	Rs.
Cost of land	
) Cost of 35 acres of bearing coconut garden at Rs. 4000/- per acre	140000
) Cost of 25 acres of unplanted area at Rs. 1000/- per acre	25000
) Value of improvements	12000
) Solatium for compulsory acquisition at 15%.	26550
	203550
2. Cost of lay out of the area at Rs. 50/- per acre	3000
3. Cost of Buildings (a) Residential	
(1) Assistants' Quarters—one	6000
(2) Quarters for two Watchmen	2000
	8000
(b) Non-residential	
(1) Combined Office, Laboratory & Record Room	10000
(2) Cattle shed and implement store	2000
(3) Coconut Store	2000
(4) Manure pits	1000
(5) Cart stand	1000
(6) Inspection shed	2000
(7) Drinking water well	1000
(8) Fencing	4000
	23000
4. Purchase of Dead and Live stock and other storage	
(1) Live stock—2 pairs	2000
(2) Dead stock—cart, wheel, barrow, steelyard and implements	3000
(3) Furniture	1000
	6000
Total non-recurring	243550

	I Year 1956-57 (1)	II Year 1957-58 (2)	III Year 1958-59 (3)	IV Year 1959-60 (4)	V Year 1960-61 (5)	Total (6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
B. RECURRING						
1. Pay of Staff						
(1) **One Assistant Oilseeds Specialist on** Rs. 230–30/2–260–40/2–500–50/2–700	2760	2760	3120	3120	3600	15360
(2) One Assistant on Rs. 100–5–140–EB–10–220	1200	1260	1320	1380	1440	6600
(3) Two Fieldmen on Rs. 45–2–55–1–60	1080	1128	1176	1224	1272	5880
(4) One Clerk on Rs. 45–3–60–2–90	540	576	612	648	684	3060
(5) One Peon on Rs. 18–½–25	216	222	228	234	240	1140
Total	5796	5946	6456	6606	7236	32040
2. Cost of living allowance						
(1) One Assistant Oilseeds Specialist at 17½% of pay plus Rs. 6 till Rs. 300 and thereafter 17½%	552	552	624	624	708	3060
(2) One Assistant at Rs. 17½% of pay + Rs. 8 when pay exceeds Rs. 100	288	312	324	336	348	1608
(3) Two Fieldmen on Rs. 22 per mensem	528	528	528	528	528	2640
(4) One Clerk at Rs. 22 till Rs. 60 and at Rs. 24 thereafter	264	264	264	264	264	1320
(5) One Peon at Rs. 18 per mensem	216	216	216	216	216	1080
Total	1848	1872	1956	1968	2064	9708
3. Travelling Allowance	200	200	200	200	200	1000
4. Other charges						
(1) Cultivation charges at Rs. 100 per acre for 60 acres	6000	6000	6000	6000	6000	30000
(2) Office Contingencies	500	500	500	500	500	2500
(3) Pay of one Maistry on Rs. 20–1–30 and two watchmen on Rs.15	600	612	624	636	648	3120
(4) Dearness allowance to Maistry and Watchmen	648	660	660	660	660	3288
Total working expenses	7748	7772	7784	7796	7808	38908
Total Recurring for one Station	15592	15790	16396	16570	17308	81656
Estimated receipts for five years at Rs. 14000 per year					Rs.	70000

HARE OF MADRAS GOVERNMENT

Non-recurring expenditure	Rs. 243550
50 per cent of recurring expenditure	40828
Total	284378
Less 60% of total receipts	42000
Net expenditure	242378

SHARE OF THE GOVERNMENT OF INDIA

50% of recurring expenditure	40828
Less 40% of the total receipts	28000
Net expenditure	12828

Share of Madras Government for two Regional Coconut Research Stations for 5 years

Non-recurring expenditure	487100
50% of the recurring expenditure	81656
Total	568756
Less 60% of the total receipts	84000
Net expenditure	484756

Share of Government of India for two Regional Coconut Research Stations for 5 years

5 % of the recurring expenditure	81656
Less 40% of the total receipts	56000
Net expenditure	25656

STATEMENT NO. 9

Statement of Cost of establishing two Regional Coconut Research Stations in Mysore State for 5 years

	I Year (1)	II Year (2)	III Year (3)	IV Year (4)	V Year (5)	Total (6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Cost of one Regional Coconut Research Station						
Pay of Staff						
1. Research Officer in charge of Station to start on Rs. 215 p. m. in the grade of Rs. 200–15–350 (No. 1)	2580	2760	2940	3120	3300	14700
2. Assistant Botanist to start on Rs. 100 p. m. in the grade of Rs. 100–8–140–10–200 (No. 1)	1200	1296	1392	1488	1584	6960
3. Assistant Chemist to start on Rs. 100 p. m. in the grade of Rs. 100–8–140–10–200 (No. 1)	1200	1296	1392	1488	1584	6960
4. Agricultural Inspectors to start on Rs. 60 p. m. each in the grade of Rs. 55-5–100–10-150 (Nos. 2)	1440	1560	1680	1800	1920	8400
5. Fieldmen to start on Rs. 40 p. m. each in the grade of Rs. 30-1-40-2-60 (Nos. 3)	1440	1512	1584	1656	1728	7920
6. Clerk 1st division in the grade of Rs. 60-5-90-6-150 (No. 1)	720	780	840	900	960	4200
7. Steno-typist 2nd grade in the grade of Rs. 45-3-60-4-100 (No. 1)	540	576	612	648	684	3060
8. Store clerk in the grade of Rs. 40–2–50-3–80 (No. 1)	480	504	528	552	576	2640
9. Mechanic in the grade of Rs. 60-4–80 (No. 1)	720	768	816	864	912	4080
10. Peons in the grade of Rs. 18–½-22 (Nos. 2)	432	444	456	468	480	2280
11. Watchmen in the grade of Rs. 18-½-22 (Nos. 2)	432	444	456	468	480	2280
12. Bullockmen in the grade of Rs. 25–1-30 (Nos. 4)	1200	1248	1296	1344	1392	6480
Total	12384	13188	13992	14796	15600	69960

	(1)	(2)	(3)	(4)	(5)	(6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
llowances to staff	6450	6738	6738	6738	6738	33402
igh price and dearness allowance to staff	2000	2000	2000	2000	2000	10000
ravelling Allowance	800	800	800	800	800	4000
ontingencies, stationery and stamps	2500	2500	2500	2500	2500	12500
attle feed	1000	100	100	800	100	2100
Tools and implements	4700	4700	4700	4700	4700	23500
Cost of 17000 seednuts	1500	1500	1500	1500	1500	7500
Handling and transportation charges						
8 permanent labourers on Rs. 15 p. m. and dearness allowance at Rs. 17 p. m.	3072	3072	3072	3072	3072	15360
Casual labour	2000	2000	2000	2000	2000	10000
Cost of chemical and organic manures and green manure seeds	1000	6000	6000	6000	6000	25000
Apparatus and chemicals	3000	3000	2500	2500	2500	13500
Maintenance of roads, repairs to buildings & power charges	1500	1500	1500	1500	1500	7500
Lease amounts for laying out experiments on private gardens of an area of 15 acres at the rate of Rs. 400 an acre per year.	6000	6000	6000	6000	6000	30000
Total	35522	39910	39410	40110	39410	194362
Grand Total	47906	53093	53402	54906	55110	264322

Capital Charges (Non-recurring)

Office & Laboratory	20000
Quarters to Research Officer in charge of the Station (No. 1)	10000
Quarters to Graduate Assistants (Botany and Chemistry) and Agricultural Inspectors (Nos. 1)	20000
Quarters to Clerks and Typist (Nos. 3)	12000
Quarters to Fieldmen and Mechanic (Nos. 4)	12000
Quarters to Bullockmen, permanent coolies, Watchmen and Peons (Nos. 16)	24000
Shed for bullocks	5000
Stores and Implement shed	8000
Fencing	5000

	(1)	(2)	(3)	(4)	(5)	(6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bullocks 4 pairs at Rs. 1125 per pair						4500
Deep wells with pumps and pipe connections (3 wells)						18000
Bullock carts (2)						1000
Implements						2500
Typewriter						1000
Laboratory equipment and furniture						5000
Bicycle						300
Total						148300
RECEIPTS						
By the sale of coconut seedlings and catch crops			6000	6000	6000	18000
By the sale of produce from the lands leased to the Research Station			4800	4800	4800	14400
Total			10800	10800	10800	32400
Recurring charges						
Establishment (Pay)						69960
Allowances and other charges						194362
Total						264322
Non-recurring charges						148300
Total cost						412622
Receipts						32400
Net expenditure for 5 years						380222
Share of the Central Government						190111
Share of the Mysore Government						190111
Hence net expenditure for 5 years for 2 Regional Coconut Research Stations						760444
Share of the Central Government for 2 Regional Coconut Research Stations						380222
Share of the Mysore Government for 2 Regional Coconut Research Stations						380222

STATEMENT NO. 10

Financial Statement in respect of three Zonal Parasite Breeding Stations for the biological control of *Nephantis serinopa* in Madras State

(i) FOR EACH STATION

	I Year (1)	II Year (2)	III Year (3)	IV Year (4)	V Year (5)	Total (6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Pay of Establishment						
One Upper Subordinate at Rs. 100 p. m. (Rs. 100-5-140-EB-10-220)	1200	1260	1320	1380	1440	6600
One Fieldman at Rs· 45 p. m. (Rs. 45-2-55-1-60)	540	564	588	612	636	2940
	1740	1824	1908	1992	2076	9540
Dearness Allowance						
Assistant at Rs. 24 p. m.	288	288	288	288	288	1440
Fieldman at Rs. 22 p. m.	264	264	264	264	264	1320
	552	552	552	552	552	2760
Travelling Allowance						
Assistant at Rs. 50 p. m.	600	600	600	600	600	3000
Fieldman at Rs. 20 p. m.	240	240	240	240	240	1200
	840	840	840	840	840	4200
House Rent Allowance						
Assistant at Rs. 3 p. m.	36	36	36	36	36	180
Fieldman at Rs. 3 p. m.	36	36	36	36	36	180
	72	72	72	72	72	360

	(1)	(2)	(3)	(4)	(5)	(6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Non-recurring						
Purchase of apparatus and other equipment for Laboratory	1500					1500
Contingencies Recurring						
Rent for Laboratory at Rs. 30 p. m.	360	560	360	360	360	1800
Wages for 3 mazdoors at Rs. 32 p. m.	1152	1152	1152	1152	1152	5760
Tour allowance at 10 annas a day for 20 days in a month for 3 mazdoors	450	450	450	450	450	2250
Laboratory and other sundry expenses at Rs. 12-8-0 p. m.	150	150	150	150	150	750
	3612	2112	2112	2112	2112	12060

ABSTRACT

Recurring:	
Pay of establishment	9540
Dearness allowance of establishment	2760
Travelling allowance	4200
House Rent allowance	360
Contingencies recurring excluding rent	8760
Total	25620
50% of the cost to be shared by the Government of India, i. e. $\frac{25620}{2}$	12810
Total amount to be met by the State Government (Rs. 12810 plus Rs. 3300)	16110
Expenditure for three Stations	
Government of India's share	38430
Share to be met by the Madras State Government (Rs. 38430 plus Rs. 9900)	48330

STATEMENT NO. 11

Financial statement in respect of two Zonal Parasite Breeding Stations for the biological control of *Nephantis serinopa* in Andhra State

FOR ONE STATION

	I Year (1)	II Year (2)	III Year (3)	IV Year (4)	V Year (5)	Total (6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Pay of establishment						
One Upper Subordinate at Rs. 100 p. m. (Rs. 100-5-140-EB-10-220)	1200	1260	1320	1380	1440	6600
Two Fieldmen at Rs. 45 p. m. (Rs. 45-2-55-1-60)	1080	1128	1176	1224	1272	5880
	2280	2388	2496	2604	2712	12480
Dearness Allowance						
One Upper Subordinate at Rs. 24 p. m.	288	288	288	288	288	1440
Two Fieldmen at Rs. 22 p. m.	528	528	528	528	528	2640
	816	816	816	816	816	4080
House Rent Allowance						
One Upper Subordinate at Rs. 3 p. m.	36	36	36	36	36	180
Two Fieldmen at Rs 3 p. m.	72	72	72	72	72	360
	108	108	108	108	108	540
Travelling Allowance						
One Upper Subordinate at Rs. 60 p. m.	720	720	720	730	720	3600
Two Fieldmen at Rs. 35 p. m.	840	840	840	840	840	4200
	1560	1560	1560	1560	1560	7800
Contingencies—Non-recurring						
Purchase of apparatus and materials	1000	400	100	100	100	1700

	(1)	(2)	(3)	(4)	(5)	(6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Contingencies-Recurring						
Rent for Office & Laboratory at Rs. 50 p. m.	600	600	600	600	600	3000
	1600	1000	700	700	700	4700
Contingencies-Recurring						
Wages & Dearness Allowance for 4 mazdoors at Rs. 33 each p. m.	1534	1534	1584	1584	1584	7920
Travelling Allowance for the 4 mazdoors at Rs. 18 each p. m. for tour in coconut gardens in 2 districts	864	864	864	864	864	4320
Miscellaneous items and other laboratory charges	200	200	200	200	200	1000
Purchase of cholam for rearing of corcyra	400	400	400	400	400	2000
	3048	3048	3048	3048	3048	15240

ABSTRACT

Recurring:	
Pay of Establishment	12480
Dearness Allowance of Establishment	4080
House Rent Allowance of Establishment	540
Travelling Allowance	7800
Contingencies Recurring excluding rent	15240
Total	40140
50% of the cost to be shared by the Government of India i. e. $\frac{40140}{2}$	20070
Total amount to be met by the Andhra State Government (Rs. 20070 plus Rs. 4700)	24770
Expenditure for two Stations	40140
Government of India's share	49540
Andhra State Government's share	

STATEMENT NO. 12

Financial statement in respect of three Zonal Parasite Breeding Stations for the biological control of *Nephantis serinopa* in Bombay State

FOR EACH STATION

	I Year 1956-57 (1)	II Year 1957-58 (2)	III Year 1958-59 (3)	IV Year 1959-60 (4)	V Year 1960-61 (5)	Total (6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Pay of Establishment						
One Agricultural Officer on Rs. 80 p. m. (80–5–100–8–140–10–220)	960	1020	1080	1140	1200	5400
One Agricultural Assistant on Rs. 55 p. m. (Rs. 55–3–85)	660	696	732	768	804	3660
	1620	1716	1812	1908	2004	9060
Dearness Allowance						
One Agricultural Officer at Rs. 50 p. m.	600	600	600	600	600	3000
One Agricultural Assistant at Rs. 40 p. m.	480	480	480	480	480	2400
	1080	1080	1080	1080	1080	5400
Travelling Allowance						
One Agricultural Officer at Rs. 50 p. m.	600	600	600	600	600	3000
One Agricultural Assistant at Rs. 20 p. m.	240	240	240	240	240	1200
	840	840	840	840	840	4200
Non-recurring						
Purchase of apparatus and other laboratory equipment	1500					1500

	(1)	(2)	(3)	(4)	(5)	(6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Contingencies-Recurring						
Rent for Office & Laboratory at Rs. 30 p. m.	360	360	360	360	360	1800
	1860	360	360	360	360	3300
Contingencies-Recurring						
Wages for three mazdoors at Rs. 32 p. m.	1152	1152	1152	1152	1152	5760
Tour Allowance at 10 annas a day for 20 days in a month for three mazdoors	450	450	450	450	450	2250
Laboratory and other sundry expenses at Rs. 12-8-0 p. m.	150	150	150	150	150	750
	1752	1752	1752	1752	1752	8760

ABSTRACT

Recurring:	
Pay of Establishment	9060
Dearness Allowance of Establishment	5400
Travelling Allowance of Establishment	4200
Recurring contingent expenditure excluding rent	8760
Total	27420
50% of the cost to be shared by the Government of India i. e. $\frac{27420}{2}$	13710
Total amount to be met by the Bombay State Government (Rs. 13,710 Plus Rs. 3,300)	17010
Expenditure for three Stations	
Government of India's share	41130
Bombay Government's share	51030

STATEMENT NO. 13

Financial statement in respect of one Zonal Parasite Breeding Station for the biological control of *Nephantis serinopa* in West Bengal

	I Year (1)	II Year (2)	III Year (3)	IV Year (4)	V Year (5)	Total (6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
ay of Establishment						
One Research Assistant on Rs. 150 p. m. (150-5-240-10-300)	1800	1860	1920	1980	2040	9600
One Field Assistant on Rs. 90 p. m. (Rs. 90-4-130)	1080	1128	1176	1224	1272	5880
	2880	2988	3096	3204	3312	15480
Dearness Allowance						
One Research Assistant at Rs. 50 and One Field Assistant at Rs. 40 p. m.	1080	1080	1080	1080	1080	5400
Travelling Allowance						
One Research Assistant at Rs. 50 and One Field Assistant at Rs. 20 p. m.	840	840	840	840	840	4200
Non-recurring						
Purchase of apparatus and laboratory equipment	1500					1500
Contingencies-Recurring						
Rent for Office & Laboratory at Rs. 30 p. m.	360	360	360	360	360	1800
	1860	360	360	360	360	3300

	(1)	(2)	(3)	(4)	(5)	(6)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Contingencies-Recurring						
Wages for 3 mazdoors at Rs. 32 p. m.	1152	1152	1152	1152	1152	5760
Tour allowance at 10 annas a day for 20 days in a month for 3 mazdoors	450	450	450	450	450	2250
Laboratory and other sundry expenses at Rs 12-8-0 p. m.	150	150	150	150	150	750
	1752	1752	1752	1752	1752	8760

ABSTRACT

Recurring:	
Pay of establishment	15480
Dearness allowance of establishment	5400
Travelling allowance of establishment	4200
Recurring contingent expenditure excluding rent	8760
Total	33840
50% of the cost to be shared by the Government of India i. e. $\frac{33840}{2}$	16920
Total amount to be met by the West Bengal Government (Rs. 16920 plus Rs. 3300)	20220

STATEMENT NO. 14

Statement of expenditure for 5 years on account of appointment of Coconut Propaganda Officer and staff in Madras State.

	I Year	II Year	III Year	IV Year	V Year	Total
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
ay of staff						
Coconut Propaganda Officer on Rs. 230-30/2-260-40/2-500-50/2-700	2760	2760	3120	3120	3600	15360
Clerk on Rs. 45-5-90	540	600	660	720	780	3300
Peon on Rs. 18-½-25	216	222	228	234	240	1140
Allowances						
D. A. of Officer at 17½% of pay plus Rs. 6	564	564	624	624	708	3084
Clerk at Rs. 22 p. m.	264	264	264	264	288	1344
Peon at Rs. 18 p. m.	216	216	228	228	228	1116
T. A. of officer and peon at Rs. 2000 per annum	2000	2000	2000	2000	2000	10000
Contingencies						
Office rent at Rs. 25 p. m.	300	300	300	300	300	1500
Miscellaneous contingent expenditure, stationery etc.	1500	1000	1000	1000	1000	5500
Total	8360	7926	8424	8490	9144	42344
Deduct rent of office to be met by State Government	300	300	300	300	300	1500
Expenditure to be shared by the Government of India and State Government on 50 : 50 basis	8060	7626	8124	8190	8844	40844
Government of India's share	4030	3813	4062	4095	4422	20422
Madras Government's share	4330	4113	4362	4395	4722	21922

STATEMENT NO. 15

Statement of expenditure for 5 years on account of appointment of Coconut Propaganda Officer and staff in Andhra State.

	I Year	II Year	III Year	IV Year	V Year	Total
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Pay of staff						
Coconut Propaganda Officer on Rs. 230-30/2-260-40/2-500-50/2-700	2760	2760	3120	3120	3600	15360
Clerk on Rs 45-5-90	540	600	660	720	780	3300
Peon on Rs. 18-½-25	216	222	228	234	240	1140
Allowances						
D. A. of Officer at 17½% of pay plus Rs. 6	564	564	624	624	708	3084
Clerk at Rs. 22 p. m.	264	264	264	264	288	1344
Peon at Rs 18 p. m.	216	216	228	228	228	1116
T. A. of officer and peon at Rs. 2000 per annum	2000	20 0	2000	2000	2000	10000
Contingencies						
Office rent at Rs. 25 p. m.	300	300	300	300	300	1500
Miscellaneous contingent expenditure, stationery etc.	1500	1000	1000	1000	1000	5500
Total	8360	7926	8424	8490	9144	42344
Deduct rent of office to be met by State Government	300	300	300	300	300	1500
Expenditure to be shared by the Government of India and State Government on 50 : 50 basis	8060	7626	8124	8170	8844	10844
Government of India's share	4030	3813	4062	4095	4422	20422
Andhra Government's share	4330	4113	4362	4395	4722	21922

STATEMENT NO. 16

Scheme regarding the appointment of a Coconut Development Officer in Travancore-Cochin State for 5 years

	I Year	II Year	III Year	IV Year	V Year	Total
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I. Coconut Development Officer—pay at Rs. 350-450 and Dearness allowance	5040	5328	5616	5904	6192	28080
II. Travelling Allowance for Development Officer	3000	3000	3000	3000	3000	15000
III. One Accountant — Head Clerk on Rs. 80-5-120 pay and Dearness allowance	1284	1344	1404	1464	1524	7020
One clerk on Rs. 45-75 One Typist on Rs. 30-120 Pay and Dearness Allowance	1668	1764	1860	1956	2052	9300
Two peons on Rs. 20 each and dearness allowance	1008	1008	1008	1008	1008	5040
Office contingencies.	2000	2000	2000	2000	2000	10000
Total	14000	14444	14888	15332	15776	74440
Government of India's share.						37220
State Government's share.						37220
						74440

STATEMENT NO. 17

Statement of expenditure for 5 years on account of appointment of Coconut Development-Cum-Propaganda Officer & staff — Mysore.

	I Year	II Year	III Year	IV Year	V Year	Total
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Pay of Staff						
Coconut Development-Cum-Propaganda Officer on Rs. 300-25-600	3600	3900	4200	4500	4800	21000
Propaganda Assistant (4) for Hassan, Tumkur, Mysore & Bangalore, on Rs. 100-8-140-10-200 with a starting pay of Rs. 140 p. m.	6720	7200	7680	8160	8640	38400
Clerk (1) on Rs. 60-5-90-6-150 p. m.	720	780	840	900	960	4200
Typist (1) on Rs. 45-3-60-4-100 p. m.	540	576	612	648	684	3060
Peons (6) on Rs. 18-½-21.	1296	1332	1368	1404	1440	6840
Allowances						
Dearness Allowance of Coconut Development Officer at Rs. 17-8-0 p. m.	570	570	570	570	570	2850
Dearness allowance of Propaganda Assistants (4)	1170	1170	1530	1530	1530	6930
Dearness allowance of Clerk (1) at Rs. 23 p. m.	276	276	276	276	276	1380
Dearness allowance of Typist (1) at Rs. 23 p. m.	276	276	276	276	276	1380
Dearness allowance of Peons 6 at Rs. 20 p. m.	1440	1440	1440	1440	1440	7200
Travelling allowance of Officers and Peons (Rs. 8,000 per annum)	8000	8000	8000	8000	8000	40000
Contingencies						
Office Rent at Rs. 40 p. m. each (4 Propaganda Assts.)	1920	1920	1920	1920	1920	9600
Miscellaneous contingent expenditure, stationery etc.	6000	6000	6000	6000	6000	30000
Total	32528	33440	34712	35624	36536	172840
Deduct Rent of Office to be met by the State Government.	1920	1920	1920	1920	1920	9600
Expenditure to be shared by the Government of India and the State Government on 50:50 basis.	30608	31520	32792	33704	34616	163240
Government of India's share.	15004	15760	16396	16852	17308	81620
Mysore Government's share.	17224	17680	18316	18772	19228	91220

STATEMENT NO. 18

Statement of expenditure for 5 years on account of appointment of a Coconut Research and Development Officer and Staff in Orissa State

	I Year	II Year	III Year	IV Year	V Year	Total
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Pay of staff						
Coconut Research and Development Officer on Rs. 200-15-260-20-435-EB-25-460-30-700.	1200	1290	1380	1470	1560	6900
Two Propaganda Assistants on Rs. 150-5-160-10-220-EB-10/2-250	3600	3720	3840	4080	4320	19560
Three Peons on Rs. 18-½-22.	648	666	684	702	720	3420
Allowances						
* Dearness Allowance at 17½% of pay plus Rs. 7-8-0 p. m.	255	270	287	303	319	1432
Dearness allowance of two Propaganda Assistants at 17½% of pay plus Rs. 7-8-0 p. m.	810	831	852	894	936	4323
Dearness allowance of three Peons at Rs. 16-4-0 p. m.	585	585	585	585	585	2925
Travelling Allowance of Officer, Assistants and Peons.	4000	4000	4000	4000	4000	20000
Contingencies						
Office rent at Rs. 25 p. m.	300	300	300	300	300	1500
Miscellaneous contingent expenditure, stationery etc.	1500	1000	1000	1000	1000	5500
Total	12898	12662	12928	13334	13740	65562
Deduct rent of office to be met by State Government.	300	300	300	300	300	1500
Expenditure to be met by the Government of India and State Government on 50:50 basis.	12598	12362	12628	13034	13140	64062
Government of India's share.	6299	6181	6314	6517	6720	32031
Orissa Government's Share.	6599	6481	6614	6817	7020	33531

* 50% of expenditure towards pay and allowances of officer has been debited to the scheme regarding Regional Coconut Research Station.

STATEMENT NO. 19

Statement of cost relating to the Plant Protection work in the Travancore-Cochin State.

	I Year	II Year	III Year	IV Year	V Year	Total
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I. Pay of 21 Supervisors on Rs. 45-75 and Dearness allowance at Rs. 27 p. m.	18144	19404	20664	21924	23184	103320
II. Travelling Allowance of Supervisors at Rs. 25 p. m.	6300	6300	6300	6300	6300	31500
III. Cost of 44 additional sprayers to be purchased at Rs. 200 each	8800					8800
IV. Cost of Perenox (2 tons) at Rs. 6300 per ton per annum	12600	12600	12600	12600	12600	63000
V. Labour charges to spray 7 lakhs trees at Rs. 3-8-0 for 50 trees	49000	49000	49000	49000	49000	245000
VI. Contingent charges for maintenance of sprayers, transport etc.	3000	5000	5000	5000	5000	23000
Total	97844	92304	93564	94824	96084	474620
Estimated receipt per year as fee collections for 7 lakhs spraying at one anna.	43750	43750	43750	43750	43750	218750
Net expenditure	54094	48554	49814	51074	52334	255870
Share of Government of India	27047	24277	24907	25537	26167	127935
Share of State Government	27047	24277	24907	25537	26167	127935

STATEMENT NO. 20

Statement of expenditure for 5 years on account of strengthening Plant Protection Service, Mysore State, for control of pests and diseases of coconut.

	I Year	II Year	III Year	IV Year	V Year	Total
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
(1) Four Fieldmen (one each for the four Districts of Hassan, Tumkur, Mysore and Bangalore)						
Pay at Rs. 40-2-60 p. m.	1920	2016	2112	2208	2304	10560
Dearness allowance at Rs. 20 p. m.	960	960	960	960	960	4800
(2) Lump sum towards distribution of chemicals to coconut growers at 50% of cost.	10000	10000	10000	10000	10000	50000
Total expenditure to be met by Government of India and State Government on 50:50 basis	12880	12976	13072	13168	13264	65360
Government of India's share	6440	6488	6536	6584	6632	32680
Mysore Government's share	6440	6488	6536	6584	6632	32680

STATEMENT NO. 21

The cost for 5 years in connection with the appointment of a Marketing Officer and staff in the Committee's Office is worked out below.

	I Year	II Year	III Year	IV Year	V Year	Total
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Marketing Officer						
Pay	4200	4500	4800	5100	5400	
Dearness Pay plus Dearness Allowance	840	840	840	840	840	
Travelling Allowance	4000	4000	4000	4000	4000	
	9040	9340	9640	9940	10240	48200
Typist						
Pay	660	696	732	768	804	
Dearness Pay plus Dearness Allowance	600	600	600	600	600	
Travelling Allowance	800	800	800	800	800	
	2060	2096	2132	2168	2204	10660
Peon						
Pay	360	366	372	378	384	
Dearness Pay plus Dearness Allowance	480	480	480	480	480	
Travelling Allowance	500	500	500	500	500	
	1340	1346	1352	1358	1364	6760
Contingencies	600	600	600	600	600	3000
Cost of typewriter	400					400
Grand Total						59020

STATEMENT NO. 22

Budget estimate for the Scheme for estimation of the cost of cultivation of coconut on the West Coast.

	I Year	II Year	Total
	Rs.	Rs.	Rs.
) Field Staff			
One Statistical Officer on Rs. 275-800—Rs. 275 p. m. for 12 months and Rs. 300 p. m. for 12 months	3300	3600	6900
Dearness Allowance at Rs. 65 p. m.	780	780	1560
. Two Assistant Statistical Officers on Rs. 160-330 Rs. 160 p. m. for 12 months & Rs. 170 p. m. for 6 months	3840	2040	5880
Dearness Allowance at Rs. 60 p. m.	1440	720	2160
3. Six Investigators on Rs. 100–150 Rs. 100 p. m. for 12 months & Rs 105 p. m. for 1 month	4200	3630	7830
Dearness Allowance at Rs. 50 p. m. for 12 months and at Rs. 55 p. m. for 1 month	2100	1830	3930
Total (A)	15660	12600	28260
(B) Staff for compilation			
Two Investigators on Rs. 100–150; Rs. 105 p. m. for 6 months		1260	1260
Dearness Allowance at Rs. 55 p. m.		660	660
Total (B)		1920	1920
(C) Other Items			
1. Electric adding and listing machine	2500		2500
2. Travelling allowance	5400	3600	9000
3. Honorarium to village officers	300		300
4. Contingencies	250	250	500
5. Printing, Stationery and Postage	250	250	500
Total (C)	8700	4100	12800
Grand Total	24360	18620	42980 or Rs. 43000

STATEMENT NO. 23

Statement of expenditure for sample surveys for assessment of results of coconut schemes under the 2nd Five-Year Plan

State—Details of expenditure	I Year	III Year	IV Year	V Year	Total
	Rs.	Rs.	Rs.	Rs.	Rs.
(1) Travancore-Cochin					
Four Statistical Supervisors on Rs. 80-5-120	3840	4080	4320	4560	16800
Dearness Allowance at Rs 27 per month	1296	1296	1296	1296	5184
24 Investigators on Rs. 30-3-45 per mensem	8640	9504	10368	11232	39744
Dearness Allowance at Rs. 27 p. m.	7776	7776	7776	7776	31104
Travelling Allowance at Rs. 15 per mensem	4320	4320	4320	4320	17280
Labour charges for harvesting nuts and other contingencies	6000	6000	6000	6000	24000
Total	31872	32976	34080	35184	134112
(2) Madras State					
Statistical Supervisors (6) on Rs. 100-8-140	7200	7776	8352	8928	32256
Fieldmen (12) on Rs. 45-2-55-1-60	6480	6768	7056	7344	27648
Compiler (1) on Rs. 45-3-60	540	576	612	648	2376
Dearness Allowance	5292	5292	5292	5292	21168
Travelling Allowance	6000	6000	6000	6000	24000
Other charges	4000	4000	4000	4000	16000
Total	29512	30412	31312	32212	123448
(3) Andhra State					
Statistical Supervisor (1) on Rs. 100-8-140	1200	1296	1392	1488	5376
Fieldmen (4) on Rs. 45-2-55-1-60	2160	2256	2352	2448	9216
Computor (1) on Rs. 45-3-60	540	576	612	648	2376
Peon (1) on Rs. 18-½-22	216	222	228	234	900
Dearness Allowance	1836	1836	1836	1836	7344
Travelling Allowance	1500	1500	1500	1500	6000
Other charges	1500	1500	1500	1500	6000
Total	8952	9186	9420	9654	37212

State—Details of expenditure	I Year	III Year	IV Year	V Year	Total
	Rs.	Rs.	Rs.	Rs.	Rs.
(4) Mysore State					
Statistical Supervisors (3) on Rs. 100-8-140	3600	3888	4176	4464	16128
Fieldmen (12) on Rs. 40 3-70	5760	6192	6624	7056	25632
Compiler (1) on Rs. 45 3-60	540	576	612	648	2376
Dearness Allowance	4668	4668	4668	4668	18672
Travelling Allowance	4000	4000	4000	4000	16000
Other charges	5000	5000	5000	5000	20000
Total	23568	24324	25080	25836	98808
(5) Bombay					
Statistical Supervisors (3) on Rs. 80-5 100-8 140	2880	3060	3240	3420	12600
Fieldmen (12) on Rs. 55-3-85	7920	8352	8784	9216	34272
Compiler (1) on Rs. 55-3-85	660	696	732	768	2856
Dearness Allowance	4500	4500	4500	4500	18000
Travelling Allowance	3600	3600	3600	3600	14400
Other Charges	5000	5000	5000	5000	20000
Total	24560	25208	25856	26504	102128
(6) Orissa State					
Statistical Supervisor (1) on Rs. 100-8-140	1200	1296	1392	1488	5376
Fieldmen (4) on Rs. 45-2-55-1-60	2160	2256	2352	2448	9216
Computor (1) on Rs. 45-3-60	540	576	612	648	2376
Peon (1) on Rs. 18-½-22	216	222	228	234	900
Dearness Allowance	1965	1982	1999	2016	7962
Travelling Allowance	1500	1500	1500	1500	6000
Other charges	1500	1500	1500	1500	6000
Total	9081	9332	9583	9834	37830

State—Details of expenditure		I Year	III Year	IV Year	V Year	Total
		Rs.	Rs.	Rs.	Rs.	Rs.
(7) West Bengal						
Statistical Supervisors (2) on Rs. 100-8-140		2400	2592	2784	2976	10752
Fieldmen (8) on Rs. 45-2-55-1-60		4320	4512	4704	4896	18432
Computor (1) on Rs. 45-3-60		540	576	612	648	2376
Peon (2) on Rs. 18-½-22		432	444	456	468	1800
Dearness Allowance		3636	3672	3708	3744	14760
Travelling Allowance		3000	3000	3000	3000	12000
Other Charges		3000	3000	3000	3000	12000
	Total	17328	17796	18264	18732	72120
(8) Assam State						
Statistical Supervisor (1) on Rs. 100-8-140		1200	1296	1392	1488	5376
Fieldmen (4) on Rs. 45-2-55-1-60		2160	2256	2352	2448	9216
Computor (1) on Rs. 45-3-60		540	576	612	648	2376
Peon (1) on Rs. 18-½-22		216	222	228	234	900
Dearness Allowance		1965	1982	1999	2016	7962
Travelling Allowance		2000	2000	2000	2000	8000
Other Charges		2000	2000	2000	2000	8000
	Total	10081	10332	10583	10834	41830
Grand total for the above States		154954	159566	164178	168790	647488
						or Rs. 647500

STATEMENT NO. 24

Cost of establishing two Co-operative Marketing Societies for copra in Travancore-Cochin State

COST OF ONE SOCIETY

Item	I Year	II Year	III Year	IV Year	V Year	Total
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1. One Manager in the scale of Rs. 100-5-115 p. m. plus Dearness Allowance at Rs. 33 p. m.	1596	1656	1716	1776	1836	8580
2. One Appraiser on Rs. 60 p. m. plus Dearness allowance at Rs. 27 p. m.	1044	1044	1044	1044	1044	5220
3. One Clerk in the scale of Rs. 30-3-45 plus Dearness allowance at Rs 27 p. m.	684	720	756	792	828	3780
4. One Watcher on Rs. 20 p. m. plus Dearness allowance at Rs. 22 p. m	504	504	504	504	504	2520
5 Godown rent at Rs. 100 p. m.	1200	1200	1200	1200	1200	6000
6. Contingencies at Rs. 100 p. m.	1200	1200	1200	1200	1200	6000
Total	6228	6324	6420	6516	6612	32100

Total recurring expenditure for one Society for 5 years Rs. 32100

Total recurring expenditure for two Societies for 5 years Rs. 64200

Share of the State Government for two Societies for 5 years
50% of recurring expenditure Rs. 32100

re of the Government of India for two Societies for 5 years
50% of recurring expenditure Rs. 32100

STATEMENT NO. 25

Cost of establishing nine Co-operative Coconut Marketing Societies in Madras State

COST OF ONE MARKETING SOCIETY

Item	Pay	Special pay	Dearness allowance	Cost per month	Cost for one year	Cost for 5 years
	Rs. As.	Rs. As.	Rs. As.	Rs. As.	Rs. As.	Rs. As.
1. Senior Inspector as Secretary on Rs. 105 in the scale of Rs. 90-4-110-5-120 plus 25% special pay	109 - 5	27 - 5	32 - 0	163 - 10	2022 - 8	10117 - 8
2. One Clerk cum Typist on Rs. 67-8-0 p. m. in the scale of Rs. 45-3-60-2-90 plus special pay of Rs. 10	67 - 8	10 - 0	24 - 0	101 - 8	1218 - 0	6090 - 0
3. One Grader on Rs. 60 (to supervise the proper drying of copra and to attend to the technical items of work connected therewith	60 - 0		22 - 0	82 - 0	984 - 0	4920 - 0
4. One Peon on Rs. 24 in the scale of Rs. 18-1-25	23 - 0		19 - 0	42 - 0	504 - 0	2520 - 0
5. One Watchman on Rs. 12	12 - 0		18 - 0	30 - 0	360 - 0	1800 - 0
6. Rent for office and godown and contingencies					1200 - 0	6000 - 0
(Recurring expenditure for one Society)						31447 - 8
Installation of a "Chula" Copra Dryer (Capital expenditure for one Society)						11000 - 0
Cost of drying yard						5000 - 0
Total						47447 - 8

Total recurring expenditure for one Society for 5 years	31447 - 8
Total recurring expenditure for nine Societies for 5 years	283027 - 8
Total Capital Expenditure for one Society	16000 - 0
Total Capital Expenditure for nine Societies	144000 - 0

Share of the State Government for 9 Societies for 5 years

50% of the recurring expenditure	Rs. 141513—12—0
50% of the capital expenditure	Rs. 72000— 0—0
Total	Rs. 213513—12—0

Share of the Govt of India for 9 Societies for 5 years

50% of the recurring expenditure	Rs. 141513—12—0
50% of the capital expenditure	Rs. 72000— 0—0
Total	Rs. 213513—12—0

STATEMENT NO. 26

Cost of establishing four Co-operative Coconut Marketing Societies in Mysore State.

COST OF ONE MARKETING SOCIETY

Items	I Year	II Year	III Year	IV Year	V Year	Total
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
) One Co-operative Inspector in the scale of Rs. 60–5–90–6–120–10–200 p. m. with Dearness Allowance at Rs. 25 p. m. and Pension contribution at Rs. 25 p. m.	1320	1380	1440	1500	1560	7200
(2) One Accountant in the scale of Rs. 60–5–90–6–150 p. m. with a Dearness allowance at Rs. 25 p. m.	960	1020	1080	1140	1200	5400
(3) One Peon in the scale of Rs. 18-½-22 p. m. with a Dearness allowance of Rs. 17 p. m.	420	426	432	438	444	2160
(4) One Hamali in the scale of Rs. 18–½–22 p. m. with a Dearness allowance of Rs. 17 p. m.	420	426	432	438	444	2160
(5) Warehouse rent at Rs. 100 p. m.	1200	1200	1200	1200	1200	6000
Total	4320	4452	4584	4716	4848	22920

Total recurring expenditure for 5 years	Rs. 22920
Total recurring expenditure for four Societies	Rs. 91680
Share of State Government for 4 societies for 5 years 50% of recurring expenditure	Rs. 45840
Share of Government of India for four Societies for 5 years 50% of recurring expenditure	Rs. 45840

STATEMENT NO. 27

Cost of establishing three Co-operative Coconut Marketing Societies in Andhra State

COST OF ONE MARKETING SOCIETY

Item	Pay	Special pay	Dearness allowance	Cost per month	Cost for one year	Cost for 5 years
	Rs. As.	Rs. As.	Rs. As.	Rs. As.	Rs. As.	Rs. As.
1. One Senior Inspector as Secretary on Rs. 105 in the scale of Rs. 90-4-110-5-120 plus 25% special pay	109 - 5	27 - 5	32 - 0	168 - 10	2023 - 8	10117 - 8
2. One Clerk-cum-Typist on Rs. 67-8-0 p. m. in the scale of Rs. 45-3-60-2-90 plus special pay of Rs. 10	67 - 8	10 - 0	24 - 0	101 - 8	1218 - 0	6090 - 0
3. One Grader on Rs. 60 (to supervise the proper drying of copra and to attend to the technical items of work connected therewith)	60 - 0	..	22 - 0	82 - 0	984 - 0	4920 - 0
4. One Peon on Rs. 24 in the scale of Rs. 18-1-25	23 - 0	..	19 - 0	42 - 0	504 - 0	2520 - 0
5. One Watchman on Rs. 12	12 - 0	..	18 - 0	30 - 0	360 - 0	1800 - 0
6. Contingencies					1200 - 0	6000 - 0
Total recurring expenditure	(Recurring expenditure for one Society for 5 years)					31447 - 8
Capital Expenditure						
Installation of a "Chula" Copra Dryer						11000 - 0
Cost of drying yard						5000 - 0
Total				(Capital expenditure for one Society)		16000 - 0
Grand Total						47447 - 8
Total non-recurring expenditure for 3 Societies for 5 years						48000 - 0
Total recurring expenditure for 3 Societies for 5 years						94342 - 8

Share of the State Government for 3 Societies for 5 years.

50% of the non-recurring expenditure	Rs.	24000—0—0
50% of the recurring expenditure	Rs.	47171—4—0
Total	Rs.	71171—4—0

Share of the Govt. of India for 3 Societies for 5 years.

50% of the non-recurring expenditure	Rs.	24000—0—0
50% of the recurring expenditure	Rs.	47171—4—0
Total	Rs.	71171—4—0

STATEMENT NO. 28

Cost of establishing five Co-operative Coconut Marketing Societies in Bombay State.

COST OF ONE MARKETING SOCIETY

Items	I Year	II Year	III Year	IV Year	V Year	Total
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
. One Inspector in the scale of Rs. 100-8-150 with Dearness allowance at Rs. 15 p. m.	1740	1836	1932	2028	2124	9660
2 One Accountant on Rs. 75 (fixed) plus Dearness allowance at Rs. 40 p. m.	1380	1380	1380	1380	1380	6900
3. One Peon on Rs. 30 plus Dearness allowance at Rs. 35 p. m.	780	780	780	780	780	3900
4. One Hamali on Rs. 30 plus Dearness allowance at Rs. 35 p. m.	780	780	780	780	780	3900
5. Rent of Office, Godown and contingencies	1200	1200	1200	1200	1200	6000
Total	5880	5976	6072	6168	6264	30360

Expenditure for one Society for 5 years	Rs.	30360
Expenditure for 5 Societies for 5 years	Rs.	30360 x 5
	Rs.	151800
Share of the State Government for 5 Societies for 5 years at 50%	Rs.	75900
Share of the Government of India for 5 Societies for 5 years at 50%	Rs.	75900

STATEMENT NO. 29

Cost of establishing three Co-operative Coconut Marketing Societies in Orissa State

COST OF ONE MARKETING SOCIETY

Items	Cost per month	Cost for one year	Cost for 5 years
	Rs.	Rs.	Rs.
One Manager on Rs. 80 p. m. inclusive of Dearness allowance	80	960	4800
One Grader on Rs. 32-8-0 inclusive of Dearness allowance	32-8-0	390	1950
One Watchman on Rs. 12 plus Rs. 16-4-0 Dearness allowance p. m.	28-4-0	339	1695
Rent for Office and Godowns		500	2500
Travelling allowance for staff		200	1000
Contingent expenses		120	600
Cost of providing a warehouse			5000 capital expenditure
Total			17545

Total recurring expenditure for one Society for 5 years	Rs. 12545
Total recurring expenditure for three Societies	Rs. 37635
Total capital expenditure for one Society	Rs. 5000
Total capital expenditure for three Societies	Rs. 15000
Share of the State Government for 3 Societies for 5 years	
50% of recurring expenditure	Rs. 18817-8-0
50% of capital expenditure	Rs. 7500-0-0
Total	Rs. 26317-8-0
Share of the Government of India for 3 Societies for 5 years	
50% of recurring expenditure	Rs. 18817-8-0
50% of capital expenditure	Rs. 7500-0-0
Total	Rs. 26317-8-0

SUPPLEMENTARY NOTE

Subject No. 37—Second Five-Year Plan—Inclusion of schemes relating to coconut—reference from Government of India.

Coconut Development in Saurashtra:

The Agronomist, Central Coconut Research Station, Kasaragod who was deputed to Saurashtra to study the present condition of coconut cultivation there and make recommendations for the future, has reported that there may be at present about 30,000 trees in the State in different stages of bearing. Except for three or four compact plantations, cultivation is scattered. Except for the coastal strip stretching from Porbunder to Mahuva (distance 120 miles) varying in width from half mile to five miles the rest of Saurashtra is unsuitable for coconut cultivation. The above strip is strewn with calcareous stones ranging from pebbles to boulders. If these are removed and the land irrigated coconut can thrive here very well. The cost of reclamation by manual labour is estimated at about Rs 1,000 per acre. There are plenty of under ground water resources available in this area and the climate is equable. About 1 lakh of acres of land in this coastal strip are said to be available for reclamation of which it is proposed that about 25,000 acres may be brought under coconut.

Measures suggested for adoption under the Second Five-Year Plan for developing coconut cultivation in Saurashtra are:-

1) The appointment of a Coconut Development Officer, with 3 months' training in coconut culture at the Central Coconut Research Station, Kasaragod, to do intensive propaganda among existing and prospective growers regarding the right methods of coconut cultivation,

2) the establishment of a coconut nursery with an annual production target of 5,000 quality seedlings.

3) the setting up of a Regional Research Station at Mangrol,

4) the laying out of 5-acre coconut demonstration plots at suitable centres to be selected later,

5) reclamation of waste land and provision of irrigation facilities,

6) the provision of a live wind-break along the sea front,

7) a detailed soil survey and

8) the publication in the regional language of literature concerning coconut cultivation.

The non-recurring and recurring expenditure for a period of 5 years, on items (1), (2) and (3) listed above are Rs. 70,000 and 1,39,040 respectively (*Vide* statement No. 30 attached)

A provision of Rs. 50,000 may be made for laying out demonstration plots.

The expenditure may be shared by the State and Central Governments as follows:—

	Central Government's share	State Government's share
Items (1), (2) & (3)	Rs. 69,520 (50% of recurring expenditure)	Rs. 1,39,520 (50% of recurring & non-recurring expenditure)
Item (4)	Rs. 25,000 (50% of expenditure)	Rs. 25,000 (50% of expenditure)
	Rs. 94,520	Rs. 1,64,520

Receipts of the order of Rs. 25,000 are estimated from the nursery which will be shared by the Central Government and the State Government on 40:60 basis. The share of the former will be Rs 10,000 and that of the latter Rs 15,000 The net expenditure will thus be as follows:—

Central Government	Rs. 84,520
State Government	Rs. 1,49,520

Extension of coconut development work in Andamans and Nicobar Islands.

There is a nucleus coconut development scheme working in the Islands. The Coconut Development Officer, Andamans, has submitted proposals regarding the development of coconut in the Islands for inclusion in the Second Five-Year Plan The extension proposals envisage the expansion of cultivation of at least 1,250 acres and the distribution of 75,000 quality seedlings during the 5-year period, lay out of new plantations, initiation of coir industries, installation of Chula copra dryer, supply of manures at subsidised rates to planters besides giving them advice, demonstration of cultural practices, control of pests etc. The proposals also include the setting up of a regional coconut research station. Demonstration plots will be arranged at three centres, where all the important items of cultural practices will be demonstrated. Demonstration of improved methods of cultivation etc. will also be carried out in individual plantation. It is also proposed to encourage the cultivators to instal a small oil mill on co-operative basis for which no provision of expenditure has been made as it is expected that the entire cost will be met by the members of the Co-operative Society.

The proposals also include work relating to the demonstration of retting of husks, manufacture of coir etc., which is actually the responsibility of the Coir Board. But in view of the fact that the work could with considerable economy be undertaken under the scheme we may allow them to undertake the work in anticipation of the concurrence of the Coir Board to share the expenditure on the work relating to coir and coir products.

I. Staff required

For implementing the scheme effectively, the following staff is considered essential:

1. One Coconut Development Officer on Rs. 350-25-500-30-800
2. Three Graduate Assistants—One for Agronomy, one for Industries and one for Development on Rs. 160-10-330.
3. One Office Assistant on Rs. 80-5-120-10/2-220.
4. One Clerk-Typist on Rs 55-3-88-4-125-5-130.
5. Four Field Assistants on Rs 80-5-125-5-150.
6. Two Coir Demonstrators on Rs. 80-5-125-5-150.
7. Three Peons on Rs. 30-½-35.

Besides, 10 tree climbers and helpers and ten experienced coir workers are necessary to be engaged under other charges on Rs. 30-½-35.

2. Financial Implications:

The financial implications involved are outlined below:—

I. Expenditure

a) Pay of Officer & staff including Andaman Special pay		Rs. 1,44,185
Dearness allowance		Rs. 49,380
Travelling allowance		Rs. 20,000
	Total pay & allowances	Rs. 2,13,565
b) Other charges		Rs. 2,36,900
	Total expenditure	Rs. 4,50,465

II. Receipts

By sale of seedlings		Rs. 28,125
Recovery of half cost of manure		Rs. 25,000
By sale of coir yarn		Rs. 90,000
By sale of coconuts		Rs. 10,000
	Total	Rs. 1,53,125 or
		Rs. 1,53,000 (round)

The details of expenditure and receipts are given in statement No. 31. The Coir Board's share of the expenditure is estimated at Rs. 70,682.

It is understood from the Ministry of Food & Agriculture (Agriculture) that the Government of India have agreed to finance the development of coconut cultivation in Andamans.

STATEMENT NO. 30

Statement of expenditure and receipts relating to the scheme for the establishment of a Regional Coconut Research Station in Saurashtra (*)

Particulars (1)		I Year (2)	II Year (3)	III Year (4)	IV Year (5)	V Year (6)	Total (7)
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
A. EXPENDITURE							
on-recurring							
i) Land — Fencing the unprotected area.		5000					5000
ii) Buildings (a) Residential							
Quarters for Farm-cum-Nursery Assistant		10000					10000
Quarters for maistry		3000					3000
Quarters for watchman		2000					2000
	Total	15000					15000
(b) Non-residential							
i) Office-cum-Laboratory		25000					25000
ii) Implement store and cart stand		5000					5000
	Total	30000					30000
iii) Dead stock							
Station waggon		15000					15000
Farm cart (open)		500					500
Furniture & office equipment		3500					3500
Implements		1000					1000
	Total	20000					20000
	Total non-recurring	70000					70000

NOTE - 1) The statement is prepared based on the presumption that the vacant area and other existing facilities available in the Moti and Nani farms at Mangrol will be made available for coconut research by the State Government. If any other place is decided upon, the estimates may have to be revised.

(2) Quarters are provided only for those staff whose stay on the farm is considered essential in the interest of work. For other members of the staff houses are available for taking on rent in the town which is only about three miles distant from the farm.

(3) The pay scales adopted for the staff are those in force under the State Government for the corresponding posts (except for the driver of the station waggon).

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
2. Recurring						
i) Pay of officer & staff						
One Coconut Development Officer on Rs. 220-15-400-20-500-25-650	2640	2820	3000	3180	3360	15000
One Senior Research Assistant on Rs. 130-7-200	1560	1644	1728	1812	1896	8640
One Farm-Cum-Nursery Assistant on Rs. 90-5-100-8-140	1080	1140	1200	1296	1392	6108
Two Field Assistants on Rs. 55-3-85	1320	1392	1464	1536	1601	7320
One Stenographer on Rs. 100-5-150--10-200	1200	1260	1320	1380	1440	6600
One Junior Clerk on Rs. 40-3-70	480	516	552	588	624	2760
One Store-keeper on Rs. 75-3-105-5-120	900	936	972	1008	1044	4860
One Maistry on Rs. 50-3-89	600	636	672	708	744	3360
One Watchman on Rs. 22-1/3-25	264	264	264	276	276	1344
Two Peons on Rs. 22-1/3-25	528	528	528	552	552	2688
One Driver for Station Waggon on Rs. 50-3-89	600	636	672	708	744	3360
Total	11172	11772	12372	13044	13680	62040
ii) Dearness allowance at existing rates (approximate)	6000	6000	6000	6000	6000	30000
iii) Travelling allowance	1000	1000	1000	1000	1000	5000
Total	7000	7000	7000	7000	7000	35000
Total pay and allowances	18172	18772	19372	20044	20680	97040

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
iv) Contingencies						
) Preparing land & planting in about 30 acres of land and their maintenance	3000	2000	2000	2000	2000	11000
) Maintenance of adult bearing trees about 500	1000	1000	1000	1000	1000	5000
) Raising nursery to supply 5000 seedlings per annum	5000	5000	5000	6000	2000	22000
l) Other contingencies	1500	500	500	500	500	3500
e) Miscellaneous	100	100	100	100	100	500
Total contingencies	10600	8600	8600	8600	5600	42000
Grand Total recurring	28772	27372	27972	28644	26280	139040
Grand Total recurring and non-recurring	98772	27372	27972	98644	26280	279040
E. RECEIPTS						
(a) By sale of 5000 seedlings at 8 annas each		2500	2500	2500	2500	10000
(b) By sale of nuts from adult bearing palms	3000	3000	3000	3000	3000	15000
Total Receipts	3000	5500	5500	5500	5500	25000

Government of India and State Government's share of expenditure and receipts

	Share of Govt. of India	Share of State Government
	Rs.	Rs.
(i) Expenditure (a) Recurring	69520	69520
(b) Non-recurring		70000
Total	69520	139520
(ii) Receipts	10000	15000
(iii) Net expenditure	59520	124520

STATEMENT NO. 31

Statement of expenditure and receipts relating to the scheme for the development of coconut cultivation in the Andamans.

Details (1)	I Year (2)	II Year (3)	III Year (4)	IV Year (5)	V Year (6)	Total (7)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
EXPENDITURE						
I. Pay of staff						
(1) One Coconut Development Officer on Rs. 350–25–500–30–800 to start on Rs. 400	4800	5100	5400	5700	6000	27000
Add 33⅓% Andaman special pay	1600	1700	1800	1900	2000	9000
Provision for pension or provident fund contribution	300	320	340	360	380	1700
(2) 3 Graduate Assistants—One for Agronomy, one for development and one for industries on Rs. 160–10–330	5760	6120	6480	6480	7200	32040
Add 33⅓% Andaman special pay	1920	2040	2160	2280	2400	10800
Provision for pension or C. P. fund contribution	360	380	400	430	450	2020
(3) One Office Assistant on Rs. 80–5–120–8–200–10/2–220	960	1020	1080	1140	1200	5400
Add 33⅓% Andaman special pay	320	340	360	380	400	1800
(4) One clerk typist on Rs. 55–3–85–4–125–5–130 (local recruitment)	660	696	732	768	804	3660
(5) 4 Field Assistants on Rs. 80–5–120–5–150	3800	4080	4320	4560	4800	21560
Add 33⅓% Andaman special pay	1280	1360	1440	1520	1600	7200
Provision for pension or C. P. fund contribution	240	255	270	285	300	1350
(6) 2 Coir Demonstrators on Rs. 80–5–120–5·150	1920	2040	2160	2280	2400	10800
Add 33⅓% Andaman special pay	640	680	720	760	800	3600
Provision for pension or C. P. fund contribution	120	130	135	140	150	675
(7) 3 Peons on Rs. 30–½–35	1080	1098	1116	1134	1152	5580
Total pay of officer and staff	25760	27359	28913	30117	32036	144185

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
II. Allowances & Honoraria						
(a) Dearness allowance						
(i) Coconut Development Officer on Rs. 85	1020	1020	1020	1020	1020	5100
(ii) 3 Assistants on Rs. 60	2160	2160	2160	2160	2340	10980
(iii) One Office Assistant on Rs. 65	660	660	660	660	660	3300
(iv) One clerk typist on Rs. 50	600	600	600	600	600	3000
(v) 4 Field Assistants on Rs. 55	2640	2640	2640	2640	2640	13200
(vi) 2 Coir Demonstrators on Rs. 55	1320	1320	1320	1320	1320	6600
(vii) 3 Peons on Rs. 40	1440	1440	1440	1440	1440	7300
Total	9840	9840	9840	9840	10020	49380
(b) Travelling allowance	4000	4000	4000	4000	4000	20000
Total allowances & honoraria	13840	13840	13840	13840	14020	69880
Grand Total—Pay & Allowances	39600	41199	42753	43957	46056	213565

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
III Other charges						
Cost of 20,000 seed coconuts at Rs. 150 per 1000	3000	3000	3000	3000	3000	15000
Preparing and raising nursery	2500	2500	2500	2500	2500	12500
Cost of gunny bags for packing	500	200	200	200	200	1300
Running demonstration plots	2000	2000	2000	2000	2000	10000
Cost of manure for distribution	8000	10000	10000	11000	11000	50000
Cost of spinning wheels and accessories	2000	1500	1000	1000	1000	6500
Ratting husk, preparing yarn, copra making	5000	8000	8000	8000	8000	37000
Wages of 10 climbers and helper on 30-½-35	3600	3660	3720	3780	3840	18600
Cost of living allowance to the above 20 skilled workers	9600	9600	9600	9600	9600	48000
Lay out, planting, fencing of regional station	3000	3000	3000	1500	1500	12000
Implements, tools etc.	2000	2000	1000	500	500	6000
Office furniture & equipment	1000	500	500	500	—	2500
Stationery, registers, postage etc.	1000	1000	1000	1000	1000	5000
Cost of one motor cycle	2000	—	—	—	—	2000
Cost of one rotevator or light bull grader	—	3500	—	—	—	3500
Cost of one chula dryer—S. B. P. D. Type etc.	7000	—	—	—	—	7000
Total other charges	52200	50460	45520	44580	44140	236900
Grand Total	91800	91659	88273	88537	90196	450465

STATEMENT OF RECEIPTS

B. Receipts						
By sale of coconut seedlings at Rs. 0—6—0 each	5625	5625	5625	5625	5625	28125
By recovery of ½ cost of manure supplied	4000	5000	5000	5500	5500	25000
By sale of 1,44,000 lbs coir yarn	—	22500	22500	22500	22500	90000
By sale of 10,000 coconuts per year	2000	2000	2000	2000	2000	10000
Total Receipts	11625	35125	35125	35625	35625	153125

APPENDIX VIII

Secretary's Note

Subject No. 40—Imports of coconuts, copra and coconut oil into India—quantities to be imported in the first half of 1955.

The Indian Central Coconut Committee had on the suggestion of the Government of India, decided at its 17th meeting (April 1953) that notes indicating the position of supplies of coconuts and coconut products in India should be forwarded to the Government of India twice a year to help them to decide about the quantities of coconuts and coconut products needed to be imported into the country.

At its 19th meeting (April 1954) the Committee considered the question of the imports of coconuts and coconut products during the second half of 1954 and decided to recommend to the Government of India that these imports should be so adjusted that they should not exceed 50000 tons in terms of copra for the whole of 1954 and to reiterate the Committee's recommendation made at its 18th meeting, that if a minimum price was guaranteed there was no need to place restrictions on imports.

The above decision was communicated to the Government of India and in reply, they have forwarded extracts of orders relating to their import policy regarding coconut products for the second half of 1954. This policy is substantially the same as that for the previous half year. According to it imports of coconuts, copra and coconut oil would be allowed to established importers to the extent of 100 per cent of the best year's imports. The basic period out of which established importers can select the 'best year' for the purpose of calculating quota runs from 1st April 1945 to 31st March 1953. In the case of coconut oil, quota licences will be granted subject to the proviso that not more than two-third of the face value of the licence will be used for the import of coconut oil and the balance will be used for the import of copra and coconut kernel. 'Actual users' and 'new comers' can also apply for licences for copra and coconut oil. Regarding the recommendation for the guarantee of a minimum economic price to coconut growers no reply has been received. The Government of India have been reminded about it and their reply is awaited.

The quantities of coconuts, copra and coconut oil imported during the periods of January to June and January to December for the years 1950 to 1953 and during January—June in 1954 are shown below:—

Commodity	1950		1951		1952		1953		1954
	January June	January December	January June	January December	January June	January December	January June	January December	January June.
Coconuts (Nos.)	72470	798907	55025	1085025	24	1053274	25125	207033	255240
Copra (In tons)	6327	13711	1137	9536	6071	19884	3845	25758	17676
Coconut oil (In tons)	8843	17817	4454	23718	14714	24366	11025	25905	11054
Total in terms of copra (In tons)	20601	42565	8329	47949	20785	59339	21634	67570	35543

Having regard to the quantities of copra and coconut oil imported during the periods mentioned above the Committee may decide what quantity in terms of copra should be recommended for import during the first half of **1955**.

The subject may first be considered by the Marketing and Economics Sub-Committee which will report to the full Committee.

APPENDIX IX

Secretary's Note

Subject No. 43—Revised Budget Estimates of the Committee for the year 1954—55.

The Budget Estimates for 1954-55 passed by the Committee at its 18th meeting held in October last have been approved by the Government of India in their letter No. F. 2-69/53-Com. II dated 15-2-1954 The Revised Estimates for the year (*Vide* Annexure I) are now presented for the Committee's approval.

The principal variations between the Budget Estimates and the Revised Estimates are detailed below:—

Receipts

The closing balance according to the Receipts and Payments account for the year ended 31-3-1954 was of the order of Rs. 2,12,957. This amount has been shown as the opening balance in the Revised Budget Estimates as against Rs. 1,94,715-6-11 in the sanctioned Budget Estimates.

I. Coconut Cess

The income from the cess inclusive of arrears of cess due from the Travancore-Cochin Government, which is expected to be credited to the Committee's account during the current year is now estimated at Rs. 8,50,000 as against Rs. 8,00,000 in the Budget Estimates for the year.

2. Contribution from the Travancore-Cochin Government towards cost of setting up the Central Coconut Research Station, Kayangulam

Though a sum of Rs. 1,28,000 was provided under this head in the Revised Budget Estimates for 1953-54, the amount was not paid during that year pending final settlement of the amount of contribution. As the contribution is expected to be realised during the current year, it has been provided for in the Revised Budget Estimates.

3. Other Receipts

(b) Receipts from publications

In view of the large increase in the number of subscribers to the Bulletin and receipt by way of advertisement charges, the provision of Rs. 10,000 made in the Budget Estimates has been increased to Rs. 11,000 in the Revised Budget Estimates.

(d) (ii) Receipts from Central Coconut Research Station, Kayangulam

(i) Farm Produce etc.

The provision of Rs. 16,125 made in the Budget Estimates has been increased to Rs. 20,000 due to the anticipated receipt of increased farm revenue.

Expenditure

I. A—Administration

(Committee's Office) (For details of provision *Vide* Annexure II)

2. Pay of Establishment

The provision includes the pay of one Office Assistant and one Clerk sanctioned by the Committee at its 19th meeting.

5. Allowances

The provision includes dearness allowance for the additional posts of Office Assistant and Clerk. The provision made under "House Rent" has been reduced, as some members of the office staff have ceased to become eligible for the house rent consequent on "dearness pay" being reckoned as part of pay for purposes of the allowance.

6. Contingencies

Provisions under "Postage, Telegram etc.", "Stationery & Forms", "Printing" and "Furniture & Equipment" have been slightly increased in the Revised Budget Estimates on the basis of the expenditure incurred so far. The provision of Rs. 300 under "Audit fee" in the Budget Estimates has also been raised to Rs. 1500 as the audit fee for the four years ending 1952-53 has not been paid so far and the Comptroller, Trivandrum might put in his claim for the fee for the 5 years ending 1953-54.

I. B—Travelling Allowance of non-official members

As the present meeting of the Committee is being held at Puri the provision of Rs. 10,000 in the Budget Estimates has been stepped up to Rs. 12,000.

I. C—Publicity & Propaganda

Due to a large increase in the number of copies of the Bulletin being printed at present, consequent on the steady increase in the number of subscribers the expenditure on cost of paper, printing charges, etc., has been correspondingly increased. Provision has also been made for publishing the leaflets on different aspects of coconut cultivation in different regional languages. The provision of Rs. 50,000 has, therefore, been raised to Rs. 70,000 in the Revised Budget Estimates

II. Agricultural Research

A. (i) Central Coconut Research Station, Kasaragod

(a) Non-Recurring

(For details of provision *Vide* Annexure III

3. Buildings—Residential & Non-Residential etc.

The Buildings Sub-Committee of the Committee which met at Kasaragod, in June 1954 had decided that construction of Laboratory-cum-office building, Coconut Store and Cattle shed be taken up immediately and of the quarters for the Director, Agronomist, Farm Assistant and Watchmen as early as possible. The Director, Central Coconut Research Station, Kasaragod, has proposed that provisions should be made for the following works in the Revised Budget Estimates of his Station

Sl. No.	Name of Work	Estimated cost	Budget Provision	
			Revised Budget Estimate 1954-55	Budget Estimate 1955-56
1.	Laboratory-cum-Office Building	255880*	255880	
2.	Coconut Store	7595*	7595	
3.	Cattle Shed	6110*	6110	
4.	Ash Pits (2 Nos.) at Rs 1000	2000	2000	
5.	Manure Pit (1 No.)	2000	2000	
6.	Quarters for Director	56770*	56770	
7.	Quarters for Agronomist			
8.	Quarters for Farm Assistant	14400*	14400	
9.	Quarters for Watchmen (4 Nos.)	17440*	17440	
10.	Electrification (Part III)	19975	19975 (a)	
11.	Gas Installation	7000 1700 (b)	7000 (a) 1700	
12.	Water supply arrangements and overhead tank for irrigation purposes	12500 2000 (b)	12500 (a) 2000	

(a) Includes provision for adjusting advance payments made by the Indian Central Coconut Committee.

(b) Cost of giving connection to the new Laboratory.

(*) Including departmental charges.

The Committee's financial position does not, however, admit inclusion of provision for all the above items of work this year. It is therefore proposed to make the following provisions in the Revised Budget Estimates:—

1.	Laboratory-cum-Office Building	Rs. 106600	(part provision)
2.	Coconut Store	Rs. 7595	
3.	Cattle Shed	Rs. 6110	
4.	Ash Pits (2 Nos.)	Rs. 2000	
5.	Manure Pits (1 No.)	Rs. 2000	
6.	Electrification	Rs. 19975	
7.	Gas Installation	Rs. 7000	
8	Water supply arrangements and overhead tank for irrigation purposes.	Rs. 12500	
		Rs. 163780	

The estimated cost for the Laboratory-cum-office building including departmental charges is Rs. 255880. Only a provision of Rs. 106600 is, however, proposed for this item, on the understanding that the Central Public works Department would agree to an advance payment of this amount only being made for this work as the first instalment.

4. Stores (ii)—Furniture & Equipment

Out of the provision of Rs 16300 under the head in the sanctioned Budget Estimates a sum of Rs. 9835 has been re-appropriated to meet the cost of water supply arrangements. The balance of Rs 6465 has been retained in the Revised Budget Estimates to meet requirements of this year, as proposed by the Director, Central Coconut Research Station, Kasaragod.

4. Stores (iii)—Laboratory Equipment

The provision of Rs. 26000 in the Budget Estimates has been enhanced to Rs. 43000 to facilitate adjustment of sums of Rs. 12587 and Rs. 5000 paid by the Committee as advances to the Director General, Supplies and Disposals for supply of Laboratory equipment to the Research Station.

(i) (b)—Recurring Expenditure

3. Leave Salary & Pension Contribution

To pay off arrears of leave salary and pension contribution required to be made to the Madras Government increased provision has been made under the above head.

5. Petty Construction and Repairs and (6) Other Charges

(a) Farm Working Expenses (iv) Miscellaneous Expenses

The Committee had at its last meeting sanctioned a sum of Rs. 6100 to meet the cost of making a comparative study of preparing copra by installing at the Central Coconut Research Station, Kasaragod a "Chula" Copra Dryer to be placed at the disposal of the Committee by the Tyneside Foundry & Engineering Co. Ltd., New Castle-on-Tyne, England. A provision of Rs. 3000 has been included under "Petty Construction & Repairs" to meet the cost of putting up a shed for housing the "Dryer" and another amount of Rs 3100 has been provided under "Miscellaneous Expenses" to meet other related items of expenditure.

(ii) Central Coconut Research Station, Kayangulam

(For details of provision *Vide* Annexure IV)

(a) Non-Recurring Expenditure:

3. Buildings—Residential and Non-Residential etc.

The sanctioned provision of Rs. 9000 under the head has been stepped up by Rs. 8800 to meet the cost of providing flush-out latrines and construction of a lean for housing the gas plant at the Research Station. These works have been undertaken by the Central Public Works Department and an advance payment of Rs. 8084 made.

4. Stores (i) Farm Implements including carts:

The provision of Rs. 3500 made in the Budget Estimates has been reduced to Rs 2500 as the Joint Director has postponed purchase of certain articles for which provision had been originally made.

4. Stores (ii) Furniture and Office Equipment

A sum of Rs. 22170 had been sanctioned during 1952-53 for the purchase of furniture and office equipment from the Public Works Department Work Shops, Trivandrum, and furniture costing Rs. 15034 was purchased during the last financial year. Provision has been included in the Revised Budget Estimates to pay the cost of the items yet to be supplied.

5. Live Stock

No provision is included in the Revised Budget Estimates as the Joint Director proposes to postpone purchase of livestock.

(b) Recurring Expenditure

1. Pay of Officers and Staff and 2 (i) Dearness Allowance

The appointment of 3 Senior Research Assistants for which provision had been made in the Budget Estimates has not yet been made. It is now proposed to include provision for filling up one of these posts only with effect from 1-10-1954. This accounts for the reduced provisions under the two heads.

5. Petty Construction & Repairs

Enhanced provision of Rs. 1050 under the head has been necessitated to enable adjustment of an advance made to Central Public Works Department for executing annual repairs to the buildings at the Central Coconut Research Station, Kayangulam.

6. Other Charges (iv) Miscellaneous Expenses

The Joint Director has proposed that the provision of Rs. 6000 made in the Budget Estimates should be stepped up to Rs. 9000 to provide for certain items of work which have been proposed by the Reviewing Committee. A provision of Rs. 8000 only is, however, made.

(d) Office Contingencies

The provision of Rs. 5000 in the Budget Estimates has been raised to Rs. 17000 to enable the arrears of rent on land for the past 6 years to be paid to the Travancore-Cochin State Government during this year.

B. Grant-in-aid Schemes

The grants due in respect of the many schemes for the years 1952-53 and 1953-54 have not been fully paid because of the limited cash balance in the Committee's fund. Arrears to the tune of about Rs. 2½ lakhs are now pending payment in respect of these schemes. Provision has been made in the Revised Estimates for payment of a portion of the arrears, besides the estimated amount of contribution for the year 1954-55.

III. Marketing Schemes

(i) Installation of copra drying kiln, Badagara

The Committee had sanctioned a total grant of Rs. 15065 to the Malabar District Co-operative Produce Sale Society, Ltd., Badagara for installation of a Copra Drying Kiln, for which only a provision of Rs. 6900 is available in the Budget Estimates for 1954-55. Necessary provision has, therefore, been included in the Budget Estimates, for payment of the full amount of grant.

(2) Subsidy to coconut growers' Co-operative Society, Sakhigopal

Provision of Rs. 2500 has been made in the Revised Budget Estimates for payment of the subsidy sanctioned by the Committee to the Sakhigopal Coconut Growers' Co-operative Society.

General

The total of the sanctioned Budget Estimates of expenditure for the year 1954-55 is Rs. 927366 which has been raised to Rs. 1196292 in the Revised Budget Estimates. The closing balance according to the Revised Budget Estimates will be Rs. 79715 only as against Rs. 147524-6-11 in the Budget Estimates of the year.

The Revised Budget Estimates may require further revision in the light of decisions that may be taken by the Committee at this meeting. The Committee may, therefore, authorise the Secretary to make necessary revision in this regard.

The subject will first be considered by the Finance Sub-Committee, who will report to the Full Committee.

ANNEXURE I

Indian Central Coconut Committee—Revised Budget Estimates for 1954-55.

Receipts

Particulars	Actuals, 1953-54	Sanctioned Budget 1954-55	Revised Estimates 1954-55
	Rs. As. Ps.	Rs. As. Ps.	Rs.
To opening balance	214257- 6-11	194715- 6-11	212957
1. To coconut cess	586597- 8- 8	800000- 0- 0	850000
2. To Contribution from the Travancore-Cochin Govt. towards cost of setting up the C.C.R.S., Kayangulam	....	....	128000
3. OTHER RECEIPTS			
(a) Interest on investments	....	....	....
(b) Receipts from publications	10194-12-11	10000- 0- 0	11000
(c) Miscellaneous receipts	3410-15- 5	200- 0- 0	200
(d) Receipts from:			
(i) CCRS, Kasaragod	47754-10- 7	45600- 0- 0	45600
(ii) CCRS, Kayangulam			
1) Farm produce etc.	19029- 2- 9	16125- 0- 0	20000
2) Receipts from the scheme for control of leaf disease of coconuts			
(a) 3rd extension	1668-14-11	....	....
(b) 4th extension	5903- 1- 6	8250- 0- 0	8250
C/O	891846- 9- 8	1074890- 6-11	1276007

Expenditure

Particulars	Actuals, 1953-54	Sanctioned Budget 1954-55	Revised Estimates 1954-55
	Rs. As. Ps.	Rs.	Rs.
I. A. Administration	92252-13- 0	101880	106360
B. T. A. of non-official members account	11514-14- 0	10000	12000
C. Publicity & Propaganda	39915- 5- 4	50000	70000
II. *Agricultural Research*			
A. *Research Stations:*			
(i) C.C.R.S., Kasaragod			
a) Non-recurring expenditure	33700-14- 0	175000	236810
b) Recurring expenditure	132773- 9-11	181740	190800
(ii) C.C.R.S. Kayangulam			
a) Non-recurring expenditure	23930-12- 6	27800	40800
b) Recurring expenditure	124181-10- 0	155049	159850
c) Scheme for the control of leaf disease of coconuts	11015- 4- 9	9214	9214
B. *Grant-in-aid Schemes*			
a) Research Schemes:			
Regional Coconut Research Stations in:			
(1) Orissa	....	....	5234
(2) Travancore	10943- 0- 0	....	41000
(3) Andhra	....	2212	....
(4) Bombay	....	10973	7075
	480228- 3- 6	723868	879143

Receipts

Particulars	Actuals, 1953-54	Sanctioned Budget 1954-55	Revised Estimates 1954-55
	Rs. As. Ps.	Rs. As. Ps.	Rs.
B F	891846- 9- 8	1074890- 6-11	1276007
C/O	891846- 9- 8	1074890- 6-11	1276007

Expenditure

Particulars	Actuals, 1953-54	Sanctioned Budget 1954-55	Revised Estimates 1954-55
	Rs. As. Ps.	Rs.	Rs.
	480228- 3- 6	723868	879143
(b) Coconut Nurseries:			
1) Madras (comprehensive scheme)	6247- 0- 0	....	19816
2) Irinjalakuda, Cochin	695- 0- 0	103	1072
3) Kumta, Bombay	5000- 0- 0	2415	2352
4) Assam	2893- 0- 0	5865	8981
5) Orissa (comprehensive scheme)	..	1427	8515
6) Coorg	46-11- 7	....	....
7) Hebbal, Mysore	2000- 0- 0	2855	7647
8) Marudur, Madras	3555- 0- 0	2628	2655
9) Ratnagiri, Bombay	7079- 0- 0	10160	4376
10) West Bengal	14289- 0- 0	15000	25000
11) Scheme for expansion of coconut nurseries in Travancore-Cochin	35000- 0- 0	35000	50000
12) Andhra (comprehensive scheme)	..	...	12500
13) Ollukkara, T. C. State	..	....	330
14) Northern part of West Bengal	..	....	1000
(c) Miscellaneous			
1) Multiplication & distribution of *Crotalaria striata* seeds, Travancore-Cochin		....	90
2) Scheme for the establishment of zonal parasite breeding stations for biological control of *Nephantis serinopa*			
(i) Kasaragod, Madras State	4031- 0- 0	3223	3236
(ii) Razole, Andhra State	....	....	6000
(iii) Travancore-Cochin	....	....	2000
	561063-15- 1	802544	1034713

Receipts				Expenditure			
Particulars	Actuals, 1953-54	Sanctioned Budget 1954-55	Revised Estimates 1954-55	Particulars	Actuals, 1953-54	Sanctioned Budget 1954-55	Revised Estimates 1954-55
	Rs. As. Ps.	Rs. As. Ps.	Rs.		Rs. As. Ps.	Rs.	Rs.
B/F	891846- 9- 8	1074890- 6-11	1276007		561063-15- 1	802544	1034713
				3) Scheme for correct estimation of the area & yield statistics of coconuts, Mysore	9000- 0- 0	....	7751
				4) Scheme for development of coconut cultivation in the Andamans	6991- 0- 0	12621	20000
				5) Scheme for development of coconut cultivation in West Bengal	....	8208	8600
				6) Crop competition for coconuts	935- 0- 0	1125	1195
				7) Scheme for maintenance of a collection block of representative varieties of coconuts in Assam	170- 0- 0	680	680
				8) Scheme for spraying of coconut trees ,through Co-operative Unions	5441-14- 9	....	....
				9) Scheme for increasing production of coconuts in Hyderabad State	...	....	2000
				10) Investigation of the band disease of coconut palm in Bombay State	....	....	1500
C/O	891846- 9- 8	1074890- 6-11	1276007		583601-13-10	825178	1076439

Receipts				Expenditure			
Particulars	Actuals, 1953-54	Sanctioned Budget 1954-55	Revised Estimates 1954-55	Particulars	Actuals, 1953-54	Sanctioned Budget 1954-55	Revised Estimates 1954-55
	Rs. As. Ps.	Rs. As. Ps.	Rs.		Rs. As. Ps.	Rs.	Rs.
B/F	891846- 9- 8	1074890- 6-11	1276007		583601-13-10	825178	1076439
				11)Appointment of Coconut Propaganda Officer & staff, T. C. State			7000
				III. *Marketing Schemes*			
				1) Installation of copra drying kiln, Badagara		6900	15065
				2) Subsidy to coconut growers co-operative society, Sakhigopal			2500
				IV. Repayment of Govt. of India loan	95288- 0- 0	95288	95288
				Total	678889-13-10	927366-0- 0	1196292
				By balance	212956-11-10	147524-6-11	79715
Grand Total	891846- 9- 8	1074890- 6-11	1276007	Grand Total	891846- 9- 8	1074890-6-11	1276007

ANNEXURE II

Revised Budget Estimates, 1954-55

I. A. Administration.

Head of Expenditure	Actuals, 1953-54			Sanctioned Budget, 1954-55	Revised Estimates, 1954-55
	Rs.	As.	Ps.	Rs	Rs.
1. PAY OF OFFICERS					
Secretary	12623	3	0	13860	13860
2. PAY OF ESTABLISHMENT					
(a) Class III	29975	11	0	34800	35700
(b) Class IV	3471	2	0	3600	3700
Total	46073	0	0	38400	39400
3. Leave salary & Pension contributions	1526	3	4	1600	1600
4. I. C. Coc. C. Provident Fund contributions	3079	3	0	3000	3200
5. ALLOWANCES & HONORARIA					
(a) Travelling Allowance	7965	8	0	8000	8000
(b) Dearness Allowance	18437	10	0	19220	20500
(c) House rent Allowance	2332	14	0	2400	1600
(d) Medical attendance fee	231	1	0	800	800
Total	33572	7	4	30420	30900
6. CONTINGENCIES					
(a) Rent	1867	0	0	2400	2400
(b) Postage, Telegrams etc.	3441	2	0	3500	4000
(c) Books & Publications	595	5	9	500	500
(d) Stationery & forms	2556	9	6	2500	3000
(e) Printing	878	1	11	2000	2500
(f) Office Contingencies	2921	2	6	3000	3000
(g) Audit fee	....	..	..	300	1500
(h) Furniture & Equipment	348	0	0	400	500
Total	12607	5	8	14600	17400
Total Administration	92252	13	0	101880	106360

ANNEXURE III

Central Coconut Research Station, Kasaragod—Revised Budget Estimates for 1954—55

4 (d) (ii) — Receipts

Particulars				Actuals, 1953-54			Sanctioned Budget, 54-55		Revised Estimates 54-55	
	Rs.	As.	Ps.	Rs.	As.	Ps.	Rs.	Rs.	Rs.	Rs.
Farm produce etc.	....			47754	10	7		45600		45600

II A. (i) — Expenditure

Particulars				Actuals, 1953-54			Sanctioned Budget, 54-55		Revised Estimates 54-55	
	Rs.	As.	Ps.	Rs.	As.	Ps.	Rs.	Rs.	Rs.	Rs.
(a) NON-RECURRING EXPENDITURE										
1. Cost of land				58	9	0		1700		3000
2. Lay out				4209	1	6		7000		7000
3. Buildings-Residential and non-residential including water supply, electricity etc.				11212	7	4		110300		163780
4. STORES										
(i) Farm implements including carts	888	6	6				11700		11700	
(ii) Furniture & Office equipment	919	6	3				16300		6465	
(iii) Laboratory equipment	13557	14	5				26000		43000	
(iv) Meteorological observatory	2441	11	9				1000		965	
(v) Photographic equipment	413	5	3	18220	12	2	1000	56000	900	63030
Total non-recurring expenditure				33700	14	0		175000		236810

Particulars	Actuals, 1953-54						Sanctioned Budget, 54-55		Revised Estimates 54-55	
	Rs.	As.	Ps.	Rs.	As.	Ps.	Rs.	Rs.	Rs.	Rs.
RECURRING EXPENDITURE										
Pay of officers & staff				51577	7	0		59850		57000
ALLOWANCES & HONORARIA										
(i) Dearness allowance	23072	0	0				25820		26400	
(ii) Other compensatory allowance including medical attendance	450	9	6				1000		1000	
(iii) Travelling allowance	5037	12	0				8000		8000	
(iv) Honoraria				28560	5	6	320	35140	100	35500
3. Leave salary & pension contribution				3255	5	0		2200		6300
4. Provision for I. C. Coc. C. Provident Fund contribution				2278	0	0		3550		4000
5. Petty construction & repairs				6636	14	0		10000		13000
6. OTHER CHARGES										
(a) Farm working expenses										
(i) Cultivation charges	7167	9	0				11400		11400	
(ii) Manures & Chemicals	4555	10	0				9000		9000	
(iii) Maintenance of cattle	3028	7	7				4100		4100	
(iv) Miscellaneous expenses	15395	9	4	30147	3	11	20500	45000	23600	48100
(b) Apparatus and materials				1713	13	1		15000		15000
(c) Library books and periodicals				2131	0	3		3000		3000
(d) Office contingencies				3443	9	2		8000		8900
Total recurring expenditure				132773	9	11		181740		190800

ANNEXURE IV

Central Coconut Research Station, Kayangulam—Revised Budget Estimates, 1954—55.

4 (d) (ii) — Receipts

Particulars				Actuals, 1953-54			Sanctioned Budget, 54-55		Revised Estimates 54-55	
	Rs.	As.	Ps.	Rs.	As.	Ps.	Rs.	Rs.	Rs.	Rs.
1. Farm produce etc.				19029	2	9		16075		20000
2. Receipts from the scheme for control of leaf disease of coconuts										
(a) 3rd extension scheme	4668	14	11							
(b) 4th extension scheme	5903	1	6	10572	0	5		8250		8250

Expenditure

(a) *NON-RECURRING*										
1. Cost of land										
2. Lay out								1000		1000
3. Buildings—Residential & non-residential including water supply, electricity etc.				5666	4	3		8800		17800
4. Stores										
(i) Farm implements including carts	1175	1	6				3500		2500	
(ii) Furniture & office equipment	15032	11	0				1000		7000	
(iii) Laboratory equipment	1659	12	0				10000		10000	
(iv) Meteorological observatory	396	15	9				1000		1000	
(v) Photographic equipment				18264	8	3	1500	17000	1500	22000
5. Livestock								1000		
Total non-recurring expenditure				23930	12	6		27800		40800

Particulars	Actuals, 1953-54						Sanctioned Budget, 54-55		Revised Estimates, 54-55	
	Rs.	As.	Ps.	Rs.	As.	Ps.	Rs.	Rs.	Rs.	Rs.
(b) RECURRING EXPENDITURE										
1. Pay of officers & staff				56913	8	0		72998		64800
2. Allowances & honoraria										
(i) Dearness allowance	22098	11	0				26051		23900	
(ii) Other compensatory allowance including medical attendance							1000		1000	
(iii) Travelling allowance	5183	3	0				7000		7000	
(iv) Honoraria				27281	14	0	500	34551	100	32000
3. Leave salary & pension contribution				1187	5	10		1500		1500
4. Provision for I. C. Coc. C. Provident Fund contribution				2957	0	0		3000		3400
5. Petty construction & repairs				439	14	3		4000		5650
6. Other charges										
(a) Farm working expenses										
(i) Cultivation charges	6500	15	6				6000		6000	
(ii) Manures & chemicals	6766	6	6				9000		9500	
(iii) Maintenance of cattle							1000			
(iv) Miscellaneous expenses	9966	1	9	23233	7	9	6000	22000	8005	23500
(b) Apparatus & materials				9801	15	2		10000		10000
(c) Library books & periodicals				1149	11	3		2000		2000
(d) Office contingencies				1216	13	9		5000		17000
Total recurring				124181	10	0		155049		159850
7. Scheme for the control of leaf disease of coconuts										
(1) 3rd extension scheme	5168	9	6							
(2) 4th extension scheme	5846	11	3	11015	4	9		9214		9214

APPENDIX X

Secretary's Note

Subject No. 44—Budget Estimates of the Committee for the year 1955-56

In presenting the above Budget Estimates (*Vide* Annexure I) for the Committee's consideration and approval, attention is invited to the following salient features in them.

Receipts

The opening balance under this head represents the closing balance in the Revised Budget Estimates for 1954-55.

I. Coconut Cess

As against Rs. 8,50,000 in the Revised Budget Estimates for 1954-55 a sum of Rs. 7,50,000 only is shown in the Budget Estimates for 1955-56.

3. Other Receipts

(a) Receipts from publications

A provision of Rs. 12,000 has been made by way of receipts from the publications of the Committee having regard to the anticipated increased number of subscribers for the Bulletin and the advertisement charges.

(c) Receipts from (i) Central Coconut Research Station, Kasaragod

The receipts during the year are estimated at Rs 51,900 which are about Rs. 6,000 in excess of those in the Revised Budget Estimates for 1954-55.

4. Advance from the Government of India for conversion of the Central Coconut Research Stations into Central Research Institutes:

The Government of India have already been requested to advance to the Committee a sum of Rs. 2½ lakhs from funds available under the First 5-year Plan as the construction works at the Central Coconut Research Station, Kasaragod are an essential preliminary to the programme of expansion for the Central Coconut

Research Station, Kasaragod, which the Government of India have tentatively agreed to include in the Second 5-year Plan. As the advance already requested for would not be sufficient for meeting certain non-recurring items of expenditure of both the Central Coconut Research Stations for the two years 1954-55 and 1955-56 etc., the Government of India may be requested to advance a further sum of at least Rs. 1½ lakhs from the allotment promised by them for the expansion of the Central Coconut Research Stations during the operation of the first Five-Year Plan. A provision of Rs. 4,00,000 has accordingly been made under the head.

Expenditure

I. A—Administration

(Committee's Office) (*Vide* Annexure II)

As against Rs. 1,06,360 provided in the Revised Budget Estimates, a sum of Rs. 1,08,360 has been provided, the slight increase being the provision necessary for meeting the annual increments in the pay and dearness allowances etc., of the staff.

II. Agricultural Research — (A) Research Stations:

(i) Central Coconut Research Station, Kasaragod

(a) Non-Recurring Expenditure:

(*Vide* Annexure III)

The Director had proposed that a provision of Rs.2,38,200 should be made in the Budget Estimates for 1955-56 as against Rs. 1,75,000 in the sanctioned budget for 1954-55. The amount suggested by him includes among other things a sum of Rs 1,59,000 for the construction of quarters for the Office Superintendent, Accountant, Clerk, Junior Research Assistants, Fieldmen and Laboratory Assistants, Daffadar, Maistry and Peons. In view of the fact that a provision of Rs. 1,49,280 has to be made towards the balance due to the Central Public Works Department for the construction of the Laboratory-cum-office building to be undertaken during the current year and certain other urgent items of work, no provision could be made for the construction of quarters for the office staff.

(b) Recurring Expenditure

A provision of Rs. 1,95,500 has been made under this head as against Rs. 1,90,800 in the Revised Budget Estimates for 1954-55 to meet the pay and allowances of the 4 Senior Research Assistants, which posts are proposed to be filled up with effect from 1-4-1955

(ii) Central Coconut Research Station, Kayangulam

(a) Non-Recurring Expenditure

(*Vide* Annexure IV)

The Joint Director had proposed a provision of Rs 78,250 under this head, which includes a sum of Rs. 44,000 to meet the cost of construction of two class III quarters for Fieldmen and two quarters for class IV servants and another sum of Rs. 20,000 for an insect proof house for Virus work. In view of the present financial position of the Committee no provision could be made for the construction of any buildings during the year.

(b) Recurring Expenditure

(*Vide* Anuexure IV)

As against Rs. 1,59,350 in the Revised Budget Estimates for 1954-55 a sum of Rs 1,62,900 has been provided in the Budget Estimates, the difference being the Pay & Allowances of 3 Senior Research Assistants proposed to be filled up on 1-10-1954.

B. Grant-in-aid Schemes

(a) Research Schemes

(2) Travancore

The provision includes a portion of the arrears due to the Travancore-Cochin Government for the previous two years.

(3) Andhra

The scheme is expected to be started during 1955-56 and therefore the necessary provision has been made.

(4) Bombay

The scheme is proposed to be started on 1-10-1954. Provision made is according to estimates in the sanctioned scheme.

(b) Coconut Nurseries & (c) Miscellaneous schemes:

The provisions made in some of the schemes include the arrears due for the previous years also and are proposed to be cleared off in two or three years commencing from the current year.

IV. Repayment of Government of India Loan:

The provision made is for remittance to the Government of India in September, 1955 towards the 4th and last instalment of repayment of the loan.

General

In forwarding the Budget Estimates of his station, the Director, Central Coconut Research Station, Kasaragod has requested for a general approval of the Committee and the Government of India for carrying forward automatically all lapsed amounts under capital outlay to the succeeding years' budget without reference to the Committee and the Government of India. This does not appear to be a feasible proposition, especially in view of the current unsatisfactory financial position of the Committee.

A closing balance of Rs. 1,34,712 at the end of the year 1955-56 as shown in the Budget Estimates for 1955-56 will, *de facto* be possible only in case the Government of India agree to advance a sum of Rs. 4 lakhs as already stated. And even if this amount is received it may not be possible for the Committee to finance any new schemes till the financial stability of the Committee improves. If, however, for some reason the advance from the Government of India is not forthcoming there will be a deficit of about Rs. 2,15,000 at the end of the year unless of course the Committee decides either to postpone construction of the Laboratory buildings or to defer payments to the State Governments for the various schemes to the tune of about Rs 2½ lakhs. As it would not be advisable to postpone any further the construction of the Laboratory-cum-office building at the Central Coconut Research Station, Kasaragod or even the arrears due to the State Governments on the several schemes detailed in the budget the only possible way of tiding over the crisis is to impress upon the Government of India the urgent necessity of making available to the Committee a sum of Rs. 4 lakhs from their funds under the First 5-year Plan as the construction works at the Central Coconut Research Stations are an essential preliminary to the programme of expansion of the stations under the Second Five-Year Plan.

In the light of the decisions that might be taken at this meeting, the Budget Estimates for 1955-56 would require revision before submission to the Government of India. The Committee may, therefore, also authorise the Secretary to make the necessary revision as suggested in the case of the Revised Budget Estimates.

The subject may first be considered by the Finance Sub-Committee which will report to the full Committee.

ANNEXURE I

Indian Central Coconut Committee—Budget Estimates for 1955-56.

Receipts

Particulars	Actuals, 1953-54	Revised Estimates 1954-55	Budget Estimates 1955-56
	Rs. As. Ps.	Rs. As. Ps.	Rs.
To opening balance	214257- 6-11	212957- 0- 0	79715
1. Coconut cess	586597- 8- 8	850000- 0- 0	750000
2. Contribution from the Travancore-Cochin Govt. towards cost of setting up the C. C.R.S.,Kayangulam	....	128000- 0- 0	....
3. Other receipts			
(a) Receipts from publications	10194-12-11	11000- 0- 0	12000
(b) Miscellaneous receipts	3440-15- 5	200- 0- 0	200
(c) Receipts from:			
(i) CCRS, Kasaragod	47754-10- 7	45600- 0- 0	51900
(ii) CCRS, Kayangulam			
1) Farm produce etc.	19029- 2- 9	20000- 0- 0	20000
2) Receipts from the scheme for control of leaf disease of coconuts	10572-0 - 5	8250-0 - 0	....
4. Advance from the Govt. of India for conversion of the C. C. R. Stations into Central Research Institutes		....	400000
C/O	891846- 9- 8	1276007- 0- 0	1313815

Expenditure

Particulars	Actuals, 1953-54	Revised Estimates 1954-55	Budget Estimates 1955-56
	Rs. As. Ps.	Rs.	Rs.
I. A. Administration	92252-13- 0	106360	108360
B. T. A. of non-official members	11514-14- 0	12000	12000
C. Publicity & Propaganda	39915- 5- 4	70000	70000
II. *Agricultural Research*			
A. *Research Stations:*			
(i) C.C R.S., Kasaragod			
a) Non-recurring expenditure	33700-14- 0	236810	232180
b) Recurring expenditure	132773- 9-11	190800	195500
(ii) C.C.R.S. Kayangulam			
a) Non-recurring expenditure	23930-12- 6	40800	20000
b) Recurring expenditure	124181-10- 0	159850	162900
c) Scheme for the control of leaf disease of coconuts	11015- 4- 9	9214	....
B. *Grant-in-aid Schemes*			
a) Research Schemes:			
Regional Coconut Research Stations in:			
(1) Orissa	....	5234	....
(2) Travancore	10943- 0- 0	41000	41000
(3) Andhra	....	....	2212
(4) Bombay	....	7075	12512
	480228- 3- 6	879143	856664

Receipts Particulars	Actuals, 1953-54	Revised Estimates 1954-55	Budget Estimates 1955-56	Expenditure Particulars	Actuals, 1953-54	Revised Estimates 1954-55	Budget Estimates 1955-56
	Rs. As. Ps.	Rs. As. Ps.	Rs.		Rs. As. Ps.	Rs.	Rs.
B/F	891846- 9- 8	1276007- 0- 0	1313815		480228 3- 6	879143	856664
				(b) Coconut Nurseries:			
				1) Madras (comprehensive scheme)	6247- 0- 0	19816	19866
				2) Irinjalakuda, Cochin	695- 0- 0	1072	....
				3) Kumta, Bombay	5000- 0- 0	2352	2454
				4) Assam	2893- 0- 0	8981	8981
				5) Orissa (comprehensive scheme)	..	8515	8515
				6) Coorg	46-11- 7	....	....
				7) Hebbal, Mysore	2000- 0- 0	7647	7647
				8) Marudur, Madras	3555- 0- 0	2655	....
				9) Ratnagiri, Bombay	7079- 0- 0	4376	....
				10) West Bengal	14289- 0- 0	25000	16501
				11) Scheme for expansion of coconut nurseries in Travancore-Cochin	35000- 0- 0	50000	41286
				12) Andhra (comprehensive scheme)	..	12500	12530
				13) Ollukkara, T. C. State	..	330	178
				14) Northern part of West Bengal	..	1000	2723
				(c) Miscellaneous			
				1) Multiplication & distribution of *Crotalaria striata* seeds, Travancore-Cochin		90	....
				2) Scheme for the establishment of zonal parasite breeding stations for biological control of *Nephantis serinopa*			
				(i) Kasaragod, Madras State	4031- 0- 0	3236	....
				(ii) Razole, Andhra State	....	6000	5627
				(iii) Travancore-Cochin	...	2000	6110
C/O	891846- 9- 8	1276007- 0- 0	1313815		561063-15- 1	1034713	989082

Receipts				Expenditure			
Particulars	Actuals, 1953-54	Revised Estimates 1954-55	Budget Estimates 1955-56	Particulars	Actuals, 1953-54	Revised Estimates 1954-55	Budget Estimates 1955-56
	Rs. As. Ps.	Rs. As. Ps.	Rs.		Rs. As. Ps.	Rs.	Rs.
B/F	891846- 9- 8	1276007- 0- 0	1313815		561063-15- 1	1034713	989082
				3) Scheme for correct estimation of area & yield statistics of coconuts, Mysore	9000- 0- 0	7751	....
				4) Scheme for development of coconut cultivation in the Andamans	6991- 0- 0	20000	17114
				5) Scheme for development of coconut cultivation in West Bengal	....	8600	8658
				6) Crop competition for coconuts	935- 0- 0	1195	....
				7) Scheme for maintenance of a collection block of representative varieties of coconuts in Assam	170- 0- 0	680	680
				8) Scheme for spraying of coconut palms through Co-operative Unions	5441-14- 9	....	....
				9) Scheme for increasing production of coconuts in Hyderabad State	....	2000	4183
				10) Investigation of the band disease of coconut palm in Bombay State	....	1500	7056
C/O	891846- 9- 8	1276007- 0- 0	1313815		583601-13-10	1076439	1026773

Receipts

Particulars	Actuals, 1953-54	Revised Estimates 1954-55	Budget Estimates 1955-56
	Rs. As. Ps.	Rs. As. Ps.	Rs.
B/F	891846- 9- 8	1276007- 0- 0	1313815
Grand Total	891846- 9- 8	1276007- 0- 0	1313815

Expenditure

Particulars	Actuals, 1953-54	Revised Estimates 1954-55	Budget Estimates 1955-56
	Rs. As. Ps.	Rs.	Rs.
	583601-13-10	1076439	1026773
11) Appointment of Coconut Propaganda Officer & staff, T. C. State	....	7000	7042
III. *Marketing Schemes*			
1) Installation of copra drying kiln, Badagara	....	15065	....
2) Subsidy to coconut growers' co-operative society, Sakhigopal	....	2500	....
IV. Repayment of Govt. of India loan	95288- 0- 0	95288	95288
Total	678889-13-10	1196292-0- 0	1129103
By balance	212956-11-10	79715-0- 0	184712
Grand Total	891846- 9- 8	1276007-0- 0	1313815

ANNEXURE II
BUDGET ESTIMATES, 1955–56
I. A. Administration.

Head of Expenditure		Actuals, 1953-54			Revised Estimates, 1954-55	Budget Estimates, 1955-56
		Rs.	As.	Ps.	Rs.	Rs.
1. *Pay of officers*						
Secretary		12623	3	0	13860	13910
2. *Pay of establishment*						
(a) Class III		29975	11	0	35700	38200
(b) Class IV		3474	2	0	3700	3750
	Total	46073	0	0	39400	41950
3. Leave salary & Pension contributions		1526	3	4	1600	1700
4. I. C. Coc. C. Provident Fund contributions		3079	3	0	3200	3200
5. *Allowances & honoraria*						
(a) Travelling Allowance		7965	8	0	8000	8000
(b) Dearness Allowance		18437	10	0	21500	20800
(c) House rent Allowance		2332	14	0	1600	1500
(d) Medical attendance fee		231	1	0	800	800
	Total	33572	7	4	30900	31100
6. *Contingencies*						
(a) Rent		1867	0	0	2400	2400
(b) Postage, telegrams etc,		3441	2	0	4000	4000
(c) Books & publications		595	5	9	500	500
(d) Stationery & forms		2556	9	6	3000	3000
(e) Printing		878	1	11	2500	2500
(f) Office contingencies		2921	2	6	3000	3000
(g) Audit fees		....	..	..	1500	300
(h) Furniture & equipment		348	0	0	500	800
	Total	12607	5	8	17400	16500
	Total Administration	92252	13	0	106360	108360

ANNEXURE III

Central Coconut Research Station, Kasaragod—Budget Estimates for 1955—56

3 (c) (i) — Receipts

Particulars	Actuals, 1953-54						Revised Estimates 1954-55		Budget Estimates, 1955-56	
	Rs.	As.	Ps.	Rs.	As.	Ps.	Rs.	Rs.	Rs.	Rs.
Farm produce etc.	....			47754	10	7		45600		51900

II A. (i) — Expenditure

Particulars	Rs.	As.	Ps.	Rs.	As.	Ps.	Rs.	Rs.	Rs.	Rs.
(a) Non-recurring expenditure										
1. Cost of land				58	9	0		3000		....
2. Lay out				4209	1	6		7000		27000
3. Buildings-Residential and non-residential including water supply, electricity etc.				11212	7	4		....		152980
4. Stores										
(i) Farm implements including carts	888	6	6				11700		6700	
(ii) Furniture & office equipment	919	6	3				6465		20000	
(iii) Laboratory equipment	13557	14	5				43000		23500	
(iv) Meteorological observatory	2441	11	9				965		1000	
(v) Photographic equipment	413	5	3	18220	12	2	900	63030	1000	52200
5. Livestock				....			....	....	....	....
Total non-recurring expenditure				33700	14	0		236810		232180

Particulars	Actuals, 1953-54						Revised Estimates 1954-55		Budget Estimates, 1955-56	
	Rs.	As.	Ps.	Rs.	As.	Ps.	Rs.	Rs.	Rs.	Rs.
(b) Recurring expenditure										
1. Pay of officers & staff				56913	8	0		64800		75800
2. Allowances & honoraria										
(i) Dearness allowance	22098	11	0				23900		26000	
(ii) Other compensatory allowance including medical attendance fee		....					1000		1000	
(iii) Travelling allowance	5183	3	0				7000		7000	
(iv) Honoraria				27281	14	0	100	32000	100	34100
3. Leave salary & pension contribution				1187	5	10		1500		1500
4. Provision for I. C. Coc. C. Provident Fund contribution				2957	0	0		3400		3500
5. Petty construction & repairs				439	14	3		5650		4500
6. Other charges										
(a) Farm working expenses										
(i) Cultivation charges	6500	15	6				6000		7000	
(ii) Manures & Chemicals	6766	6	6				9500		10000	
(iii) Maintenance of cattle		....					....		500	
(iv) Miscellaneous expenses	9966	1	9	23233	7	9	8000	23500	9000	26500
(b) Apparatus and materials				9801	15	2		10000		10000
(c) Library books and periodicals				1149	11	3		2000		2000
(d) Office contingencies				1216	13	9		17000		5000
Total recurring expenditure				124181	10	0		159850		162900

ANNEXURE IV

Central Coconut Research Station, Kayangulam—Budget Estimates, 1955—56.

3 (c) (ii) — Receipts

Particulars	Actuals, 1953-54						Revised Estimates 1954-55		Budget Estimates, 1955-56	
	Rs.	As.	Ps.	Rs.	As.	Ps.	Rs.	Rs.	Rs.	Rs.
Farm produce etc.				19029	2	9		20000		20000
Receipts from the scheme for control of leaf disease of coconuts										
(a) 3rd extension scheme	4668	14	11							
(b) 4th extension scheme	5903	1	6	10572	0	5		8250		

II. A. (ii) Expenditure

Particulars	Actuals, 1953-54						Revised Estimates 1954-55		Budget Estimates, 1955-56	
(i) Non-recurring expenditure										
1. Cost of land								1000		500
2. Lay out										
3. Buildings—Residential & non-residential including water supply, electricity etc.				5656	1	3		17800		
4. Stores										
(i) Farm implements including carts	1175	1	6				2500		3000	
(ii) Furniture & office equipment	15032	11	0				7000		1500	
(iii) Laboratory equipment	1639	12	0				10000		10000	
(iv) Meteorological observatory	396	15	9				1000		1000	
(v) Photographic equipment				18264	8	3	1500	22000	3500	18000
5. Livestock										1000
Total non recurring expenditure				23930	12	6		10800		20000

Particulars	Actuals, 1953-54						Revised Estimates, 1954-55		Budget Estimates, 1955-56	
	Rs.	As.	Ps.	Rs.	As.	Ps.	Rs.	Rs.	Rs.	Rs.
(b) *Recurring expenditure*										
1. Pay of officers & staff				51577	7	0		57000		71500
2. Allowances & honoraria										
(i) Dearness allowance	23072	0	0				26400		29200	
(ii) Other compensatory allowance including medical attendance	450	9	6				1000		1000	
(iii) Travelling allowance	5037	12	0				8000		8000	
(iv) Honoraria		....		28560	5	6	100	35500	100	38300
3. Leave salary & pension contribution				3255	5	0		6300		2600
4. Provision for I. C. Coc. C. Provident Fund contribution				2278	0	0		4000		4000
5. Petty construction & repairs				6636	14	0		13000		7900
6. Other charges										
(a) *Farm working expenses*										
(i) Cultivation charges	7167	9	0				11400		10000	
(ii) Manures & chemicals	4555	10	0				9000		11400	
(iii) Maintenance of cattle	3028	7	7				4100		3850	
(iv) Miscellaneous expenses	15395	9	4	30147	3	11	23600	48100	17200	42450
(b) Apparatus & materials				4743	13	1		15000		17700
(c) Library books & periodicals				2131	0	3		3000		3000
(d) Office contingencies				3443	9	2		8900		8050
Total recurring expenditure				132773	9	11		190800		195500

APPENDIX XI

Secretary's Note

Subject No. 46—Proposal to levy cess on edible copra.

Attached to this note is copy of a letter received from Shri P. B. Kurup, a member of the Committee suggesting that the cess at present levied on milling copra be levied on edible copra also, as it is unfair to exempt edible copra from payment of the cess.

The question of levying cess on edible copra was considered by the Committee at its 8th meeting (October, 1948) when an *ad hoc* sub-committee was set up to go into it in detail and make recommendations on the following points:—

1. Should cess be levied on edible copra?
2. If so, should all forms of edible copra be taxed or only the ball copra of Mysore?
3. If cess is to be levied on edible copra, how is the cess to be collected?

The sub-committee decided to recommend to the Committee that a cess at the rate of 4 annas per cwt. should be collected through the customs, railway and other authorities on all *ball copra* exported from producing areas.

The sub-committee's recommendation was considered by the Committee at its 9th meeting (May, 1949) when it was decided to drop the question of levying cess on any form of edible copra —ball or cup—as it was felt that there would be practical administrative difficulties in the matter of collecting the cess.

The devising of a suitable machinery for collecting cess on ball copra is not perhaps an easy task. In the case of the ball copra produced in Mysore the plausible method that suggests itself is to levy the cess at the exporting railway stations. If this is done it is quite possible that the exporters may try to circumvent the cess by moving the stuff by road to the neighbouring States. In Travancore edible copra is not prepared separately. What passes for edible copra constitutes the best cups selected from milling copra. When the price of edible copra is more favourable than that of milling copra larger quantities are exported as edible copra and *vice versa*. The cess on edible cups could, therefore, be escaped by consigning them as milling copra and selling them as the edible variety in the market of destination.

Shri Kurup has pointed out in his letter that it should be possible to collect the cess on edible copra with the help of the Market Committees in the Madras, Mysore and Andhra States and the railway authorities. As far as Travancore-Cochin is concerned, he says that the quantity of edible copra produced there, is not considerable and that cess on it could be collected with the help of the railway and port authorities.

The following is a statement of the comparative prices of milling and edible copra during the months of May & June 1954:—

Weekly prices of milling copra at Cochin, milling and edible copra at Calicut and edible copra at Arsikere and Tiptur (per ton) for the months of May and June, 1954.

Week ending date	Cochin	Calicut				Arsikere	Tiptur
	Office pass (milling)	Office (milling)	Dilpass (edible)	Madras (edible)	Rajpuri (edible)	Ball copra (edible)	Ball copra (edible)
1-5-1954	1095 7	1176 0	1280 0	1600 0	1800 0	1724 3	1754 6
8-5-1954	1115 1	1160 0	1248 0	1600 0	1856 0	1765 15	1815 11
15-5-1954	1091 3	1152 0	1248 0	1600 0	1856 0	1767 12	1773 1
22-5-1954	1045 14	1136 0	1248 0	1600 0	1824 0	1816 10	1849 8
29-5-1954	1048 2	a1168 0	a1264 0	a1600 0	a1760 0	1805 15	1802 6
5-6-1954	1037 15	a1168 0	a1296 0	a1600 0	a1776 0	1765 15	1792 10
12-6-1054	1028 2	1168 0	1280 0	1600 0	1760 0	1791 11	1801 8
19-6-1954	1033 4	1184 0	1312 0	1600 0	1824 0	1845 0	1802 6
26-6-1954	1043 7	1176 0	1296 0	1600 0	1952 0	1808 10	1823 11

(a) Prices are for the previous days

The estimated production of edible copra is 48000 tons and the amount of cess that could be levied on it would be of the order of Rs. 2,40,000.

The question of the feasibility of collecting the cess needs going into it carefully and it is suggested that an *ad-hoc* sub-committee may be constituted to go into the question in detail and report to the Committee.

The subject will first be considered by the Finance Sub-Committee which will report to the full Committee.

Copy of letter dated 16th July, 1954 from Shri P. B. Kurup, B. A.,
Managing Director, Techno Chemical Industries Ltd.,
P. O. Box No. 74, Kozhikode, to the Secretary,
Indian Central Coconut Committee,
Ernakulam.

The Committee is collecting cess only on milling copra so far. To increase the income of the Committee it is necessary to impose a cess on copra other than milling. While milling copra costs Rs 360 per candy, edible copra fetches Rs 500 to Rs. 530. It is unfair to exempt edible copra while milling copra is made to pay Rs. 5 per ton. In fact edible copra can bear a higher cess.

The Committee's objection so far against imposing a cess is due to the difficulty in collecting the cess. Since there are Market Committees established in Mysore, Madras and Andhra States, it will be possible to collect cess on ball copra with the help of those Committees and the railways.

The other area is Travancore-Cochin. But edible copra made there is not much and as these are sent out by rail and sea it will not be difficult to collect the cess.

I would request you to place my suggestion again before the Committee.

APPENDIX XII

Secretary's Note

Subject No. 61—Scheme for establishment of a new Regional Coconut Research Station at Sakhigopal, Orissa.

The Committee at its 18th meeting (October, 1953), while considering the reasons advanced by the Orissa Government for closing down the Regional Coconut Research Station at Sakhigopal jointly financed by the Committee and the State Government had decided that the balance amount of the Committee's contribution due to the State Government should be paid only after a new Regional Coconut Research Station was started by the Orissa Government and that the State Government should be requested to take urgent steps to select the site for the new station. (*Vide* Sub. No. 9 of the proceedings of the 18th meeting).

The Orissa Government, to whom the Committee's decision was communicated, intimated in May, 1954 that the new site for the Regional Coconut Research Station was ready for Inspection and requested that it might be got inspected. The Director, Central Coconut Research Station, Kasaragod and the undersigned inspected the site in August, 1954 and a copy of the report on the inspection is attached (*Vide* Annexure I).

Copies of the report have been sent to the Orissa Government and the State Director of Agriculture for necessary action.

The concerned officers of the Orissa Government had a discussion with us regarding the working of the new regional station. It was agreed that Sri S. S. S. V. Rao who was in charge of the previous station should be put in charge of the new station and that he should be made available immediately to arrange for the reclamation and fencing of the land. It was also recommended that the staff already sanctioned for the scheme should be augmented by 2 more Fieldmen as 20 acres of coconut plantation would be acquired outside the limits of the research station for conducting cultural and manurial experiments.

The Director of Agriculture & Food Production, Orissa, has now stated that his Government desire that the proposal for establishing a new Regional Coconut Research Station should be considered by the Committee at this meeting, and that the details are under preparation. As, however, it is feared that they may not be received in time a statement of recurring expenditure on the scheme has been prepared in this office on the basis of the old scheme and fresh recommendations made and is attached to this note (*Vide* Annexure II).

The State Government have reported that they have preserved the materials purchased for the old station for use at the new station. Information regarding other items of non-recurring expenditure to be incurred on the scheme is not available in this office. It may, however, be noted that Non-recurring expenditure is not shared by the Committee.

The subject may be considered first by the Agricultural Research Sub-Committee whose recommendations will be considered by the full Committee.

ANNEXURE I

A note on the inspection of the new site proposed for the Regional Coconut Research Station, Sakhigopal in Orissa State.

The new site proposed for the Regional Coconut Research Station, Sakhigopal, Orissa State, was inspected by me on the 12th August 1954 along with Sri B. S. Mahanti, I. A. S., Secretary to the Government, Development Department, Orissa, Sri V. S. Tilak, I. A. S, Director of Agriculture, Orissa, Sri Madhav Patnaik, M. Sc, Agricultural Chemist, Orissa, Sri S. N. Mahanti, District Agricultural Officer, Puri and Sri S. S. S. V. Rao, Ex-Coconut Research Officer, Orissa. The site was again inspected on the 13th along with Sri K. Gopalan, Secretary, Indian Central Coconut Committee and the Director of Agriculture and other officers of the Department of Agriculture, Orissa State.

2. Location and physical features:-

The site now proposed for the Regional Coconut Research Station is situated about three miles to the south of the old abandoned site and 2½ miles from the Sakhigopal cross road. It lies to the west of Bhubaneshwar–Puri road.

The area proposed for the Regional Coconut Research Station is about 60 acres in extent and consists of uncultivated land which has been classified as forest area. It had belonged to a Zamindar, but has now come into the possession of the Orissa Government with the abolition of the Zamindari in the State.

The site is uneven in level and has on it a fairly good scrub growth, palmyra palms, bamboo clusters and stumps of trees cut away by the previous owners of the land. There are a few bits of vacant area which have not been brought under cultivation even though coconuts and paddy are grown on the lower fringes of the site. Probably the comparatively higher level of the site and the lethargy of the owners would have been responsible for leaving the entire area uncultivated even during the days of intensive Grow More Food Campaign in the State.

Remarks

The site appears to be in general suitable for coconut cultivation. The following points have, however, to be considered in developing it into a Regional Coconut Research Station —

(i) The soil characteristics of the proposed site were examined by the Agricultural Chemist of the State. Based on detailed investigations, the officer has reported that the soils are well supplied with nutrients and are suitable for coconut plantation.

(ii) The soil profile studies have been made only at three sites and conclusions regarding the nature of the soils, fertility status, water table etc , have been drawn from these. For a 60-acre block with variations in levels and land utilization, it would be desirable to examine more pits both lengthwise and breadthwise to see if there are any areas with conditions which would adversely affect the growth of the coconut palm.

(iii) The water-table during the peak of summer is reported to vary from 9 to 14 feet. The moisture content of some of the samples of soils and sub-soils is reported to be less than one per cent It may, therefore, be necessary to irrigate the coconut palms planted in high level fields during the dry months of the year, particularly during the early years of planting. It was stated during the inspection that the water in some of the profile pits tasted slightly brackish. This should be checked up by drawing samples of water from different spots and analysing them for the nature of salts, if any, present in them, with a view to find out the suitability of the water for irrigation purposes.

(iv) The site has, at present, fairly large number of palmyra palms of different ages, bamboo bushes, small jungle trees and other scrub growing on it. A fairly large number of stumps of old trees are also noticed. It would be desirable to indicate in a plan the position of the palmyra palms, bamboo clusters and stumps of cut trees before they are removed, so that these particular spots may be avoided as far as possible in planting coconuts This suggestion is made since coconuts do not grow well if they are planted in exactly the same site where other palms or trees had grown previously. In clearing the area of the present vegetation it would be necessary to remove them (palmyra palms, bamboo clusters and stumps of large trees) with as much of the roots as possible. A deep ploughing with a tractor with a subsoil plough and growing a leguminous green manure crop of Dhaincha *(Sesbania aculeata)* or Sunnhemp *(Crotalaria juncea)* and turning it into the soil for two or three seasons would be desirable.

(v) In laying out the entire area for experimental purposes, it would be necessary to take into account the existing evels of different fields, variation in the soil conditions, etc. The locks may be so constituted that visible variations within the same lock are avoided as far as possible. This is especially important n the matter of selecting fields for manurial experiments.

(vi) Since the site has fields of different levels, it may robably appear easy to work a Bullgrader and level up the entire rea. But this would be harmful as there will be an undue xposure of subsoil in the high level fields. The entire area should irst be marked out into blocks for different experiments and rovided with bunds to accommodate the variants and replicates. After this is done, levelling may be attempted within individual lots and blocks.

(vii) It would be desirable to use seedlings showing uniformity in morphological and other characters for planting in he experimental units. This can be achieved by obtaining seednuts rom selected mother palms showing more or less the same morphological characters. Types of palms that are largely met within the tract may be selected. The seednuts may be sown in a nursery tree-war and the selection of seedlings based on uniformity of colour and growth characters. They may then be selected at random and utilized for planting. Selection of suitable mother palms will have to be done forthwith so that the planting material becomes available for planting when the lay-out of the station is completed.

(viii) At present only about 60 acres of Zamindari land are in the possession of the Orissa Government. It would be desirable to acquire about 10 to 15 acres more, to have more or less straight boundaries for the Research Station. This would facilitate easy erection of fencing and economic lay-out.

(ix) It has to be remembered in this connection that the object of starting a Regional Coconut Research Station is to find out the best and most economic manurial and other agronomic practices etc. in relation to local conditions and also to find out a solution for problems that confront the coconut growers of the tract. Since the new site has not got any area planted with coconut and it would take at least 10 years or even more to establish and get a plantation in yields for field experiments, it is suggested that a planted area of about 20 to 30 acres with coconut trees in yielding condition is taken on lease for about 5 years and field experiments started forthwith. The leased land may be dered when the plantation to be started in the new area grows into adult yielding trees. This is very important and the suggestion may be given effect to as a part of the work of the Regional Coconut Research Station.

(x) During the course of the inspection, it was learnt that the old site is still in the possession of the State Government and is being run as a general farm. Only the special staff appointed for coconut research has been disbanded. Some exploratory field experiments which were started in the orchard area have also been abandoned. It is suggested that the trees are kept under observation and individual yield records maintained for each of the coconut palms in this farm. This can be attended to by the staff to be appointed at the new Research Station with the co-operation of the residuary staff at the old site.

(xi) It may also be pointed out in this connection that in the Sakhigopal area of Puri almost all the high level lands have been utilized for coconut plantations. If the area under coconuts is to be extended, we can only think of planting coconuts in the paddy fields by raising the level of the fields. Such a suggestion was offered by me for implementation at the old Regional Research Station where the bulk of the area was cropped with paddy. As a compromise between growing paddy and coconuts in the same land, I would suggest that bunds of about 10 to 12 feet width and about 3 feet high are put up at distances of about 50 feet from one another and coconuts planted on the bunds at distances of about 20 feet. The soil required for raising the bunds may be taken from the paddy fields by digging narrow linear trenches which could be levelled up later. This would incidentally facilitate reduction in the level of the paddy flats and provide better facilities for irrigation. The interspaces may be cropped with paddy in the normal course. It is suggested that about 3 to 5 acres of high level paddy lands in the old Regional Coconut Research Station, Sakhigopal is devoted to this trial and cost of cultivation of coconuts and paddy maintained for comparison with the costs of normal cropping of coconuts and paddy. If this proves to be economic, large areas can be brought under coconut without materially affecting the production of paddy.

(xii) **Old Coconut Farm at Puri:-** During the period of my tour in Orissa, I took the opportunity of visiting the old coconut farm at Puri which I had visited in 1947. The soil of this farm is sandy with fairly high water-table. The palms have died out in most of the areas, but where conditions are favourable, they are fairly satisfactory. The failure of the bulk of the plantation can only be ascribed to ignorance of the methods of raising coconuts in sandy areas. It is felt that by adopting proper methods of planting and aftercare, it should be possible to raise coconuts successfully in this area. A suitable block of 5 to 10 acres may be cleared of all old stumps of coconut palms and good selected seedlings planted in the interspaces avoiding the old spots. The trees may be spaced about 25 feet apart and the seedlings planted in shallow pits of about 1½ feet depth. Shri S. S. S. V. Rao who has toured in tracts in Travancore-Cochin State having similar conditions must be able to direct the planting and after-care of the new plantation. I commend this suggestion to the consideration of the Orissa Government since there are fairly extensive sandy areas in Puri which could be devoted to coconut plantation.

Before closing the report, I must thank Shri B. S. Mahanti, I. A. S., Secretary to the Government of Orissa, Development Department, and Shri V. S. Tilak, I. A. S., Director of Agriculture, Orissa State for rendering all facilities during my visit to the State.

(C. M. JOHN)

Director,

Central Coconut Research Station, Kasaragod.

Kasaragod,
28-8-1954.

ANNEXURE II

Statement of recurring expenditure on the Regional Coconut Research Station, Sakhigopal, Orissa.

	1st Year	2nd Year	3rd Year	4th Year	5th Year	Total
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1. *Pay of Officer* on Rs. 260 in the scale Rs. 200-15-260-25-435-EB-25-460	3120	3420	3720	4020	4320	18600
2. *Pay of Establishment*						
a) One Agricultural Overseer in the scale of Rs. 85-2-97-EB-2-115-4-155	1020	1044	1068	1092	1116	5340
b) Four Fieldmen on Rs. 30-1-39	1440	1488	1536	1584	1632	7680
c) One clerk on Rs. 70-2-80-4-100	840	864	888	912	936	4440
d) One Peon on Rs. 18-½-24	216	216	228	228	240	1128
e) Two Watchmen on Rs. 16-½-22	384	384	408	408	432	2016
Total Pay					Rs.	39204
3. *Allowances*						
a) Dearness allowance	3243	3295-8	3348	3400-8	3453	16740
b) Travelling allowance	200	200	200	200	200	1000
Total allowance					Rs.	17740
4. *Contingencies*						
a) Seeds & Plants	500	250	250	250	250	1500
b) Manures	1500	1500	1800	2100	2400	9300
c) Cattle food	250	500	750	750	750	3000
d) Labour	400	600	800	1000	1000	3800
e) Layout	100	200	300	400	400	1400
f) Petty construction & repairs	....	100	200	400	400	1100
g) Chemicals & Insecticides	50	100	100	200	200	650
h) Oil & Petrol for irrigation	100	350	400	500	500	1850
i) Stamp, Stationery etc.	500	500	500	500	500	2500
Total contingencies					Rs.	25100
Total recurring expenditure					Rs.	82044
Committee's share (50%)	Rs.	41022				
State Government's share (50%)	Rs.	41022				

APPENDIX XIII

Secretary's Note

Subject No. 62—Scheme for the establishment of a Zonal Parasite Breeding Station for the biological control of *Nephantis serinopa* at Kasaragod, South Kanara District-proposals for the extension of.

The Committee at its 15th meeting (April, 1952) had approved of a 2-year scheme forwarded by the Madras Government for setting up two parasite breeding stations for the biological control of *Nephantis serinopa*, one at Razole in East Godavari District and the other at Ponani in Malabar District which was later on located at Kasaragod, in South Kanara District. As the two stations had started functioning on two different dates they were treated as two separate schemes each to run for a period of two years from the date of its starting.

The 2-year period, for which the parasite breeding station at Kasaragod was sanctioned, commenced on 4-12-1952 and is due to end on the 3rd December, 1954. The Director of Agriculture, Madras State, has now forwarded a copy of his proposals for extension of the period, (*Vide* copy attached) which he has submitted to his Government for being forwarded to the Committee for its consideration. The State Government's approval of the proposals is awaited. The following comments are offered on them:—

1. About 2,87,000 parasites have so far been bred in the laboratory at Kasaragod and liberated in the coastal belt of South Kanara and Malabar Districts where *Nephantis serinopa* was active. It has been stated that the pest is distributed throughout the West Coast, its incidence spread throughout the year, and that it is necessary that the work under the present scheme should be continued for some more years.

2. The proposals are on lines similar to those on which the scheme originally sanctioned was prepared.

3 The total expenditure on the extension scheme according to the financial statement attached to it is of the order of Rs 12,952. Of this the rent of laboratory and cost of apparatus and materials amounting to Rs 1,720 should be met entirely by the

State Government, the amount to be shared by the Committee and State Government being of the order of Rs. 11,232 only. It may, however, be pointed out that the pay of the upper subordinate at Rs. 100 per mensem for 2 years in the scale of Rs. 100-5-140-10-220 will amount to Rs. 2,460 only and not Rs. 2,580 as shown in the statement. Travelling allowance has been provided at the rate of Rs. 100 per mensem instead of Rs. 70 per mensem as in the current scheme. The extra expenditure for the extension scheme on this account is Rs. 720.

4. As the original scheme had been sanctioned for a period of two years only, the Committee may agree to bear 50 per cent of the recurring expenditure for the extension period of the scheme.

The Committee may now decide whether the proposals may be approved, and if so, whether they agree to meet 50 per cent of the recurring expenditure on the scheme, excluding rent of laboratory and cost of apparatus and materials.

The subject may first be considered by the Agricultural Research Sub-Committee which will report to the full Committee.

Proposals for extension of the scheme for establishment of Zonal Parasite Breeding Station for biological control of the black headed caterpillar pest *Nephantis serinopa* at Kasaragod for a period of two years from 4-12-'54.

The scheme for the establishment of Zonal Parasite Breeding Station for biological control of *Nephantis serinopa* was sanctioned by the Government in G. O. No. Misc. 1111 Food and Agricultural Department dt. 9-7-1952 and amended in G. O. No. 1632 Food and Agricultural Department dated 16-10-'56 for a period of two years from the date of employment of the staff, with the object of intensifying biological methods of control of the pest, the efficacy of which has by previous findings been established beyond doubt. The employment of the following staff was sanctioned by the G. O. for a period of two years:—

1. One Assistant on Rs. 100—200 p. m.
2. One Fieldman on Rs. 45—90 p. m.
3. Three Mazdoors on Rs. 32 each p. m. and tour allowance at As. 10 a day for 20 days in a month.

A grant of Rs. 12134 was sanctioned for running the scheme inclusive of a non-recurring expenditure of Rs. 1500 for the purchase of equipment.

The scheme which was sanctioned in October 1952 was actually put under operation only on 4-12-1952, the date on which the Assistant posted for the scheme joined duty. As the scheme was started newly without adequate laboratory facilities and equipment only preliminary arrangements such as deputing the Assistant for a short training in parasite breeding technique under the Government Entomologist, Agricultural College, Coimbatore, equipping the laboratory and undertaking an initial survey of the pest-infested areas in South Kanara and Malabar districts could be attended to during the first three months. As such the main work under the scheme, namely, breeding of the selected species of the parasites and liberating them in the infested areas could be taken up and pursued only from the fourth month onwards. The nucleus parasite material was supplied by the Government Entomologist, Coimbatore. Even within the short period of eighteen months of the working of the scheme, good work has been turned out by undertaking a detailed survey of the coastal belt in South Kanara and Malabar districts and releasing about 287000 parasites bred in the laboratory wherever the pest was seen in an active form. The taluks of Udipi, Coondapur and Mangalore where the infestation had been severe even at the time of initiation of the scheme received special attention and by concentrating the work in this area and releasing parasites periodically not only the infestation was brought down but the parasites were also established in the areas for further biological control.

Since the pest is distributed throughout the West Coast and its incidence is also spread throughout the year it is necessary that the work on biological control which has been already initiated in the zone by starting the scheme should be continued for a long period for a practical realisation of the benefits. There is good evidence of satisfactory control of the pest in areas wherever parasites have been released and hence the breeding work will have to be intensified for organising biological control in all infested areas. The work done so far was confined mostly to the coastal belt in the two districts. The interior areas have yet to be covered. As the pest is prevalent in other parts of the State also the indents for parasites from places outside the zone should also

Hence it is necessary to continue the scheme for some years more till satisfactory control of the pest is achieved.

Financial implication for the continuance of the scheme is submitted below:—

1.	One Upper Subordinate at Rs. 100 p. m. for 2 years in the scale of Rs. 100-5-140-10-220.	2580
2.	One Fieldman at Rs. 58 p. m. for two years in the scale of Rs. 45-3-60.	1500
3.	Dearness allowance at Rs. 24 to the Assistant and at Rs. 22 to the Fieldman per mensem for two years.	1104
4.	Other compensatory allowance for the two at Rs. 3 p. m. for two years.	144
5.	Travelling allowance for the two at Rs. 100 p. m. for two years.	2400
6.	*Other charges:* Laboratory room rent at Rs. 30 p. m. for 2 years.	720
7.	Wages of 3 Mazdoors at Rs. 14 each for 2 years.	1008
8.	Dearness allowance for 3 mazdoors at Rs. 18 each for 2 years.	1296
9.	Tour allowance to mazdoors for 2 years.	900
10.	Laboratory and sundry expenses.	300
11.	Apparatus and materials.	1000

(Sd.)

HQ. Deputy Director of
Agriculture (Inspection)

APPENDIX XIV

Secretary's Note

Subject No. 63—Coconut nurseries in Travancore-Cochin State—abolition of some, revision of targets etc.

The Committee had, at its 18th meeting (October, 1953), while approving of the scheme for the establishment of a coconut nursery at Ollukkara, forwarded by the Travancore-Cochin Government, recommended that one of the existing nurseries in the southern part of the State might be closed down in view of the anxiety felt by the State authorities in the matter of disposal of the seedlings raised in some of the nurseries (*Vide* Subject No 26 of the proceedings of that meeting).

The Committee's recommendation was communicated to the Travancore-Cochin Government and they have now with their letter No. A 3-3483 54/Fd-D dated 3-8-1954 forwarded for the Committee's consideration a copy of letter No. Sc. 3093/53 dated 9-6-1954 from their Director of Agriculture (copies attached) which contains the following proposals:—

1. The 4 nurseries at North Parur, Shertallai, Chirayinkil and Karuvatta coming under the purview of the "Scheme for the expansion of coconut nursery work" in Travancore be closed down as large stocks of seedlings raised in them are remaining unsold.

2. The target of production of the nurseries at Thodupuzha and Valiathura coming under the above-mentioned scheme be increased to 30,000 seedlings each per annum as the present target of 20,000 seedlings each is not enough to meet the requirements of the growers of the areas served by them.

3. The production target of the newly started nursery at Ollukkara be enhanced from 750 seedlings to 5,000 seedlings per annum.

4. The target of production of the nurseries at Kazhakuttam, Vaikom, Kunnathur and Irinjalakuda be reduced - at Kazhakuttam from 20,000 seedlings to about 4,800, at Vaikom from 20,000 to 16,000, at Irinjalakuda from 20,000 to 15,000 and at Kunnathur from 20,000 to about 15,000.

5. New nurseries be opened at Wadakkancherry, Kothamangalam and Kunnathunad.

6. The location of the nursery at Kazhakuttam has been shifted to the palace compound at Kazhakuttam.

7. The staff of the 4 nurseries proposed to be closed down-except the 2 Fieldmen whose posts will be abolished -will be posted to Thodupuzha and Valiathura whose production target will be enhanced.

8. Two servants on Rs. 20 p. m. paid from contingencies are proposed to be appointed in each of the nurseries.

The following comments are offered on the proposals seriatim:—

1) The proposal to close down the nurseries at North Parur, Shertallai, Chirayinkil and Karuvatta may be accepted.

2) The proposal to increase the production at Valiathura and Thodupuzha may be accepted.

3) As far as the proposal to increase the production of seedlings at Ollukkara is concerned the State Government may be requested to forward detailed proposals for the purpose as that nursery functions under a separate scheme and the proposals involve additional expenditure.

4) The proposal to step down the production of seedlings at Vaikom, Kunnathur and Irinjalakuda may be approved. It does not seem necessary to continue the nursery at Kazhakuttam with such a low production target as about 4,800 seedlings especially when the production of the Valiathura nursery which is not far from Kazhakuttam is to be raised by 10,000 seedlings.

5) Separate proposals for starting a nursery at Wadakkancherry have already been received from the Travancore-Cochin Government and included in the agenda for this meeting (*Vide* Subject No. 18). Detailed proposals for starting new nurseries at Kothamangalam and Kunnathunad may be awaited.

6) In view of the suggestion in comment No. 4, there appears to be no need to shift the Kazhakuttam nursery to the palace compound. There has been no sowing of seednuts in this nursery this year.

7) When 4 nurseries under the "Scheme for expansion of Coconut Nursery Work in Travancore" are abolished, the staff in those nurseries also should be treated as disbanded automatically from the date of abolition of the nurseries. The appointment of staff to the new nurseries that may be started under new schemes is an entirely different matter. As regards the nurseries at Thodupuzha and Valiathura whose target of production will be increased to 30,000 seedlings, the proposal is to provide an additional Nursery Assistant at each nursery. In this connection it may be pointed out that the coconut nurseries at Pattukottai (Madras State) and Samalkot (Andhra State) with annual production targets of 40,000 and 30,000 seedlings are run by one Nursery Assistant, 2 Fieldmen and 2 Maistries each. It is, therefore, for consideration whether it should not be enough if an additional Fieldman alone is provided for each of the nurseries at Valiathura and Thodupuzha.

8) The Committee had at its 17th meeting (April, 1953) approved of the proposal of the Director of Agriculture, Trivandrum, that the 10 posts of Maistries and 11 posts of peons in the coconut

nurseries in the State be abolished and 21 posts of permanent servants created instead. (Vide Subject No. 13 of the proceedings of that meeting). The Committee's decision was duly communicated to the State Government and the Director of Agriculture and the State Government issued orders accordingly on the 31st October 1953. In case two servants are required for the new nurseries at Ollukkara and Wadakkancherry—separate schemes—separate proposals for the purpose may be sent by the State Government.

The subject may be considered first by the Agricultural Research Sub-Committee which will report to the full Committee.

Copy of letter No. A. 3-3483/54/Fd. D. dated 25th August, 1954
from the Secretary to Government of Travancore-Cochin,
Food Department, Agriculture A Section, Trivandrum
to the Secretary, Indian Central Coconut
Committee, Ernakulam.

Sub:— Increasing the number of Coconut Nurseries—Suggestions regarding.

I am directed to invite a reference to your letter No. F. 312/53 dated 27th October, 1953 on the subject mentioned above and to inform you that the State Director of Agriculture has now submitted his final proposals in the matter. I am forwarding herewith a copy of the letter No. Sc. 3093/53 dated 9-6-1954 from the Director of Agriculture containing the proposals for your acceptance. I am to request that the decision of the Committee may kindly be communicated to this Government at an early date.

Copy of letter No. Sc. 3093/53 dated 9-6-1954 from the
Director of Agriculture, Trivandrum to the Secretary
to Government, Food Department,
Agriculture A Section.

Sub:— Increasing the number of coconut seedlings—Suggestions regarding.
Ref: — O. M. A. 3-3483/53/Fd. D., dated 31-10-1953.

The Secretary, Indian Central Coconut Committee has suggested in his letter No F. 312/53 dated 27-10-1953 to close down if desirable one of the existing nurseries part of the State. Now there are 11 nurseries in the State as shown below:—

			Target for production of seedlings
1.	Coconut Nursery,	Valiathura	25,000
2.	Do	Kazhakuttam	20,000
3.	Do.	Chirayinkil	20,000
4.	Do.	Kunnathur (Pazhakulam)	20,000
5.	Do.	Paipad (in Changanacherry taluk)	20,000
6.	Do.	Thodupuzha (located in Malankara Estate)	25,000
7.	Do.	Karuvatta	20,000
8.	Do.	Shertallai	20,000
9.	Do.	North Parur	20,000
10.	Do.	Vaikom	20,000
11.	Do.	Irinjalakuda	20,000

There are large stocks of seedlings kept undisposed of in some of the above nurseries viz., Shertallai, North Parur, Chirayinkil and Karuvatta. The main reason for this accumulation of seedlings is perhaps due to uneven distribution of the nurseries in the State. The reason for the accumulation of seedlings in the Shertallai Nursery is probably the keen competition the nursery has to face from private nurseries in the locality. When seedlings are available locally at low prices, the cultivators are tempted to purchase those seedlings without caring for the quality of the seedlings. This is why I put forward a proposal to reduce the price of seedlings in nurseries from 8 annas to 6 annas for consideration at the last meeting of the Indian Central Coconut Committee held at Ernakulam from 21-4-1954 to 23-4-1954. Arrangements have also been made for transport of seedlings from nurseries to taluk centres for sale if there are demands, levying a transport charge of one anna per seedling within 10 miles of the nursery and 2 annas beyond 10 miles. I have also to point out in this connection that the production of seedlings in some nurseries is not adequate enough to meet the requirements of the agriculturists for instance, Thodupuzha, Valiathura etc., nurseries. It is, therefore, necessary to close down some of the existing nurseries and to open fresh nurseries in places where there is actual need.

I propose to close down the existing nurseries viz., the nurseries at (1) North Parur (2) Shertallai (3) Chirayinkil and (4) Karuvatta. The production of seedlings will also be increased in some nurseries so as to meet the demand of the people. The

Nurseries proposed for retention, the places where new nurseries are proposed to be started and the target for production of seedlings are shown below.

	Name of nursery		Target of production of seedlings.
1.	Coconut Nursery,	Valiathura	30,000 (*)
2.	Do.	Kazhakuttam	6,000 seed nuts
3.	Do.	Thodupuzha	30,000 (*)
4.	Do.	Paipad (Changanacherry)	20,000
5.	Do.	Vaikom	10,000
6.	Do.	Kunnathur	25,000 seed nuts
7.	Do.	Irinjalakuda	15,000
8	Do.	Ollukara (Newly started)	5,000

NURSERIES PROPOSED TO BE OPENED

1. Wadakancherry in Thalapilly Taluk, Trichur Dt	4,000 seed nuts
2. Kothamangalam in Muvattupuzha Taluk	10,000
3. Kunnathunad—Kunnathunad Taluk	12,000

Of the existing nurseries proposed for retention, the nursery at Kazhakuttam had to be shifted to the palace compound at Kazhakuttam and I have submitted proposals for this. Please see my letter No. Sc. 3093/53 dated 12-1-1954. Government orders on this are awaited. It is not proposed to plant seednuts in the present site of the nursery but arrangements will be made for planting nuts on receipt of Government sanction for locating the nursery in the palace compound provided sanction is received in time for planting. This year it does not seem possible to plant seednuts in the nursery since there may not be sufficient time for collecting seednuts on receipt of sanction for shifting the site of the nursery. I may also point out that there is a stock of undisposed of seedlings of last year's planting. Since the coconut nurseries at Chirayinkil, Karuvatta, North Parur and Shertallai are proposed for closure, arrangements for planting seeds in those nurseries have not been made. The nurseries have, however, to be retained until the seedlings available there are all disposed of. The staff of those nurseries will have to be appointed to the new nurseries proposed to be opened or to the existing nurseries where the target for production of seedlings is to be enhanced. The staff of the nurseries proposed to be abolished and the nurseries to which they are proposed to be appointed are shown below.

(*) has been increased to meet the growing demand for seedlings

Name of nursery to be abolished	Staff
North Parur	Nursery Asst. 1 on Rs. 45-75 Fieldman 1 on Rs. 30-45
Shertallai	Nursery Asst. 1 on Rs. 45-75 Fieldman 1 on Rs 30-45
Karuvatta	Nursery Asst. 1 on Rs. 45-75 Fieldman 1 on Rs. 30-45
Chirayinkil	Nursery Asst. 1 on Rs 45-75 Fieldman 1 on Rs. 30-45

Name of nursery to be newly opened and of the existing nursery where the staff is to be appointed.	Staff
Kunnathunad	Nursery Asst. 1 on Rs. 45-75 Fieldman 1 on Rs. 30-45
Kothamangalam	Nursery Asst. 1 on Rs. 45-75 Fieldman 1 on Rs. 30-45
Thodupuzha	Nursery Asst. 1 on Rs. 45-75
Valiathura	Nursery Asst. 1 on Rs. 45-75

It may be noted that the nurseries at Thodupuzha and Valiathura are existing nurseries where the production of seedlings is proposed to be increased. It may not be possible to carry out the works efficiently unless the staff is strengthened consistently with the increase in the production of seedlings. Hence one Nursery Assistant on Rs. 45-75 is proposed to be appointed in addition in each of these nurseries viz, Thodupuzha and Valiathura. In the nurseries proposed to be opened newly one Nursery Assistant on Rs. 45-75 and one Fieldman on Rs. 30-45 have to be appointed as in the case of the existing nurseries. Proposals have been already submitted for opening a nursery at Wadakkancherry. Please see my letter No. Sc 7211/53 dated 31-3-1954. The staff of the abolished nurseries will have to be transferred to the new nurseries when the nurseries are abolished. Any staff that cannot be provided in the nurseries will be absorbed in suitable vacancies of the Department. Besides the staff shown above for each nursery, two servants on Rs. 20 each paid from contingencies are to be appointed, proposals for which have already been submitted to Government and orders are awaited.

It may kindly be noted that the proposals do not involve any additional expenditure. As shown above the proposals are only for shifting the present nursery sites to suitable localities and to raise the target of production of seedlings in some nurseries so that the nurseries can best serve the interests of the agriculturists.

I shall submit proposals for the location of the nurseries which are proposed to be shifted. It will be possible to open the nurseries in the new sites only by the beginning of the next financial year and the planting of nuts in the nurseries will be done in the next planting season.

I request that the Government may be pleased to approve of my above proposals and forward them for the concurrence of the Indian Central Coconut Committee.

APPENDIX XV

Secretary's Note

Subject No. 65—Scheme for the organisation of a Co-operative Marketing Society for coconut growers at Nileshwar.

The Committee, at its last meeting, had considered a letter received from the Joint Registrar of Co-operative Societies, Madras, with regard to the organisation of a Co-operative Society for coconut growers at Nileshwar and had agreed that the scheme to set up the Co-operative Society would qualify for financial assistance from the Committee on the usual basis. The Committee had also decided that the Registrar of Co-operative Societies, Madras, should be requested to forward details of the scheme for the consideration and sanction of the President of the Committee subject to ratification by the Committee at this meeting (*Vide* Subject No. 71 of the proceedings of the 19th meeting).

The Madras Government with their letter No. 45612 C/54-6 dated 6-8-1954 have forwarded proposals (*Vide* Annexure I) submitted by their Registrar of Co-operative Societies for organising a Coconut Growers' Co-operative Society at Nileshwar. As there were some mistakes in the statement of cost attached to the proposals, the State Government subsequently furnished a revised statement of cost (*Vide* Annexure II).

As the proposals were received rather late, they were not submitted to the President of the Committee for approval. They are being placed before the Committee.

The object of the scheme is to start a Co-operative Marketing Society which will afford to coconut growers of Nileshwar area better facilities for marketing their coconuts and for improving their economic condition. It is reported that there are fair chances for the successful working of the society at Nileshwar. The following comments are offered on the proposals.

1. The scheme is for a period of 3 years during which the Co-operative Society that will be registered under the scheme will be given free of cost the services of a senior Co-operative Inspector and of a staff consisting of one clerk, one grader one peon and one watchman. An amount of Rs. 1200 will also be made available by way of rent for office and godown and contingencies. The total cost of these for a period of 3 years amounts to Rs. 18,868-8-0 and it is suggested that this expenditure should be shared by the Committee and the Madras Government on a 50:50 basis.

2. The staff proposed appears reasonable and the Committee may approve of the higher start of Rs. 105 and Rs. 67-8-0 in their respective scales of pay proposed for the Inspector and the clerk.

3. According to condition No. 9 of the "General conditions applicable to grants made by the Indian Central Coconut Committee", the expenditure in respect of rent on buildings has to be borne entirely by the State Government concerned. It therefore appears the Committee cannot share the provision made for rent of office and godown.

4. The statement of cost has been worked out on the basis of the average pay of the posts as the actual pay that would be drawn by the staff is not known at this stage.

5. The *modus operandi* of the society that will be started has not been indicated. If the Committee approves of the present proposals it may be suggested that the society should transact business on a commission basis only.

The Committee may now decide whether the scheme may be approved, and if so whether they agree to bear 50% of the expenditure excluding rent for office and godown.

The subject may be considered first by the Marketing and Economics Sub-Committee whose recommendation will be placed before the full Committee.

ANNEXURE I.

Copy of letter No. 46612 C/54-6 dated 6th August 1954, from Sri M. Bhavani Shankar Rao, Deputy Secretary to Government, Department of Industries, Labour & Co-operation, Madras, to the Secretary. Indian Central Coconut Committee, Ernakulam.

Sub:— Co-operative Societies—Organisation of a Co-operative Marketing Society for coconut growers at Nileshwar—Proposals.

Ref:— Your letter No F. 48(5)/45 dated 20-5-1954.

As desired in your letter cited, I am directed to forward herewith the detailed proposals for the organisation of a Co-operative Marketing Society for coconut growers at Nileshwar submitted by the Registrar of Co-operative Societies, Madras and to state that this Government recommend the scheme. I am to request that the scheme may be placed before the Indian Central Coconut Committee at its next meeting for consideration and sanction of a subsidy equal to 50% of its cost.

Copy of letter No. Rc. 33880/54 C. 1 dated 27-7-1954 from the Registrar of Co-operative Societies, Madras to the Secretary to Government, Department of Industries, Labour and Co-operation, Madras.

Sub:— Marketing Societies—Organization of a Co-operative Marketing Society for the coconut growers at Nileshwar—Proposals.

The coconut growers of the Kasaragod taluk in the South Kanara District met at Nileshwar on 5-2-1954 and resolved to form a Coconut Growers' Co-operative Marketing Society Ltd., at Nileshwar to afford better facilities for marketing their coconuts and for improving their economic condition. They elected a Committee of 10 persons to take necessary steps to organise the proposed marketing society.

2. Coconut is a very important agricultural produce in the West Coast, and it forms the bulk of the trade in that region. At present, the coconut growers are selling their produce to private merchants who exploit them. In order to eliminate the middlemen, the coconut growers in Kasaragod taluk find it necessary to organise a separate marketing society. Though there is an Agriculturists' Co-operative Marketing Society at Mangalore, its area of operation does not extend to the Kasaragod taluk south of the Chandragiri river. In this region there is already a crop loan and sale society. But as it has been confining its activities for the past 20 years to advancing loans on pepper only, it is considered that it cannot cater to the needs of the coconut growers. The coconut growers have, therefore, proposed to have a separate marketing society for themselves. For the present it is proposed to confine the activities of the society only to a limited area covering the Nileshwar firka and a few villages in Hosdrug firka of the Kasaragod taluk in order to have an effective control over the working of the society. The other villages will be included in course of time.

The Deputy Registrar, Kasaragod, who investigated into the possibilities of organising the society at Nileshwar has reported that there are fair chances for the proposed marketing society working successfully, provided financial assistance and the services of an experienced Senior Inspector are given to the society for at least the first three years. The committee of promoters consists of experienced local co-operators who can be expected to manage the society in the best interests of the coconut growers. They can command the loyalty of the members to the society, and ensure sufficient supply of produce to the society. The headquarters of the society will be at Nileshwar. Though it is now a minor Panchayat, it is developing fast, and it comes within the area selected for the National Extension Service. Pucca buildings are available for housing the society and for use as godowns. Moreover it has a railway station on the main line from Madras to Mangalore, and it is only 49 miles from Mangalore. The Society can, therefore, arrange to despatch the produce by rail to Mangalore where the price of coconut is reported to be favourable.

In these circumstances, the chances for the successful working of the co-operative marketing society for coconut growers at Nileshwar are good. But the society will not be able to meet the expenses in connection with its management in the initial years of its working until a steady and sufficient volume of business is transacted. In order to place the society on a sound footing till it is able to stand on its own legs, it will be necessary to lend the services of a Senior Inspector to the Society, free of cost, as its Secretary for a period of at least three years. In addition to this, Government will have to grant a subsidy to the society to meet the cost of its establishment, rent and contingencies.

The Indian Central Coconut Committee is taking keen interest in the organization of this society. Its Secretary who was present at a meeting of the sponsors held at Nileshwar gave them hopes that the Committee would be able to give financial assistance to the proposed society in the initial stages of its working if the Government of Madras agreed to bear half the expenditure. Subsequently when my Joint Registrar attended a meeting of the Indian Central Coconut Committee at Ernakulam on 21-4-1954, he informed the Commitiee of the proposal to form a co-operative marketing society for the coconut growers at Nileshwar, and of the need for giving it financial assistance. The Chairman of the Committee assured him that the Committee would have no objection to meeting 50% of the administrative charges provided the other 50% was met by the State Government. The cost of the scheme is shown in the statement enclosed. The total expenditure under this scheme comes to Rs 6261 per annum or Rs 18783 for three years. Half of this, viz., Rs 9391-8-0 will have to be met by the State Government and the other half by the Indian Central Coconut Committee.

If the State Government and the Indian Central Coconut Committee are agreeable to the scheme, I shall instruct the Deputy Registrar, Kasaragod to register the society.

COST OF THE SCHEME

	Pay	Special pay	Dearness allowance	Cost per month	Cost per year
	Rs.	Rs.	Rs.	Rs.	Rs.
1. One Senior Inspector as Secretary on Rs. 105 in the scale of Rs. 90–120 + 25% special pay	105–0–0	26–4–0	31	162–4–0	1,947
2 One Clerk-cum-typist on Rs. 67–8–0 per mensem in the scale of Rs. 45–90 + special pay of Rs. 10	67–8–0	10–0–0	24	101–8–0	1,218
3. One Grader on Rs. 60 (to supervise the proper drying of copra and to attend to the technical items of work connected therewith)	60·0–0		22	82–0–0	984
4. One peon on Rs. 24 in the scale of Rs. 18-25	24–0–0		19	43–0–0	516
5. One watchman on Rs. 15	15·0–0		18	33–0–0	396
6. Rent for office and godown and contingencies					1,200
Total cost for one year					6,261

Cost for 3 years Rs. 6261 × 3 Rs. 18,783

50% to be borne by the State Government Rs. 9,391.5

50% to be borne by the Indian Central Coconut Committee Rs. 9,391.5

(True copy)

Sd/—

SUPERINTENDENT

ANNEXURE II

(Enclosure to Letter No. 46612 C 54-9 dated 27-8-1954)

COST OF THE SCHEME

	Pay	Special pay	Dearness allowance	Cost per month	Cost per year
	Rs.	Rs.	Rs.	Rs.	Rs.
One Senior Inspector as Secretary on Rs. 105 in the scale of Rs. 90-4-110 5-120 + 25% special pay	109-5-0	27-5-0	32	168-12-0	[illegible]
One Clerk-cum-typist on Rs. 67-8-0 per mensem in the scale of Rs. 15-3-60-2-90 + special pay of Rs. 10	67-8-0	10-0-0	24	101- 8-0	1218-0-0
One Grader on Rs. 60 (to supervise the proper drying of copra and to attend to the technical items of work connected therewith)	60-0-0		22	82- 0-0	984-0-0
One peon on Rs. 21 in the scale of Rs. 18-1-25	23-0-0		19	42- 0-0	504-0-0
One watchman on Rs. 19	12-0-0		18	30- 0-0	[illegible]
Rent for office and godown and contingencies					[illegible]
Total cost for one year					6289-8-0

Cost for 3 years Rs. 6289-8-0 × 3	Rs.	18,868-8-0
50% to be borne by the State Government	Rs.	9,434-4-0
50% to be borne by the Indian Central Coconut Committee	Rs.	9,434-4-0

(True copy)

Sd/-

SUPERINTENDENT

APPENDIX XVI

Secretary's Note

Subject No. 66—Travancore-Cochin "Restriction on Possession and Ownership of Land" Bill—effect on coconut cultivation.

A Bill to impose a limit on the extent of land that a person may own or have in his possession, entitled "The Restriction on Possession and Ownership of Land Bill" has been introduced by the Travancore-Cochin Government in the State Assembly and circulated to elicit public opinion. The Bill has been published in the Travancore-Cochin Gazette Extraordinary dated 26-7-1954.

The "Statement of Objects and Reasons" says that the Planning Commission of the Government of India have expressed the view that there should be an upper limit to the extent of land that an individual may hold and that the Land Policy Committee appointed by the Travancore-Cochin Government have recommended that a ceiling should be fixed on the *future acquisition* of land. After considering all aspects of the question the Travancore-Cochin Government consider that a ceiling may be imposed on future acquisitions and on present possession also.

The ceilings fixed in the Bill are 15 acres of double crop *nilam* (land) or 15 acres of coconut garden or 22½ acres of single crop land or 30 acres of paramba for a 5-member family. In case the number of members in a family, (*tarwad* or *thavazhi*) exceeds five, the maximum limits specified above shall be increased at the rate of one acre of double crop land or 1½ acres of single crop land or 1 acre of coconut garden or 2 acres of paramba for each member in excess of five, subject to a maximum of 25 acres of double crop land or coconut garden or 37½ acres of single crop land or 50 acres of paramba. A period of six months is proposed to be given to persons possessing or owning lands in excess of the ceilings to dispose of their excess lands, failing which the excess lands will be given on lease to landless persons. The person who is deprived of the possession or ownership of the excess land will be given fair rent or capitalised value of the fair rent as the case may be

The Bill makes provision for the constitution of a Land Tribunal which will be entrusted with the working of the scheme and the distribution of the lands that will be released for distribution. Lands possessed by the Government of India, Government of Travancore-Cochin, Local Self Government Institutions, Public Charities and Public Trusts, Agricultural Co-operatives, Religious Institutions, Public Companies, buildings owned by the Rulers of Travancore and Cochin and lands attached to them, plantations i.e lands under tea, coffee, rubber, or cardamom and exceeding 25 acres and 'Kayal' lands which the Government may notify from time to time are exempt from the operation of this 'Bill'.

It has been pointed out that the Bill will affect adversely coconut cultivation. Copies of representations received in this connection from the Central Travancore Agriculturists' Association and Shri K. K. Kuruvilla a coconut grower are attached to this note. They have pointed out that unless coconut plantations are also excluded from the purview of the "Bill" like tea, rubber and cardamom plantations there will be a severe set back to the Committee's efforts to step up production of coconuts and make the country self sufficient in the matter of coconuts. The following points are made in these letters.

1) One of the important problems the State has to face is the prevention of fragmentation of holdings and to encourage the growers to adopt the modern methods of cultivation advocated by the Indian Central Coconut Committee. One of the ways in which coconut production can be stepped up is to encourage large scale cultivation of coconut and thereby enable the growers to obtain the benefits of large scale production. Measures for controlling the diseases of coconut can be adopted satisfactorily only in large gardens. As in the case of rubber, tea, coffee and cardamom plantation the coconut plantations should be exempted from the operation of the law and allowed to benefit from large scale cultivation.

The proposed legislation will only lead to further fragmentation of the already over fragmented holdings.

2) The Bill seeks to restrict the possession of coconut lands by an individual to 15 acres but allows him to hold upto 30 acres of 'paramba'. Land owners will, therefore, be tempted to destroy coconut palms in order to be able to own a larger area of land. In any case no attempt will be made to bring more area under coconut and make use of the advantages of large scale farming.

3) The Bill does not take into account the heavy investment required to bring coconut gardens to the bearing stage.

4) It is understood that in Kashmir and some other States where such restriction on possession of land has been placed, lands used for permanent crops like fruit cultivation involving large capital outlay have been excluded from the purview of such legislation. Similarly in the case of coconut where large capital investment is called for the land under coconut should be excluded from the purview of the Bill as in the case of tea, rubber, coffee etc.

5) In view of the effects the proposed legislation may have on coconut production in the country, a request has been made that the matter may be brought to the notice of the Government of India and the Government of Travancore-Cochin and action taken to exclude coconut lands from the purview of the Bill.

- The subject may first be considered by the Marketing and Economics Sub-Committee which will report to the full Committee.

Copy of letter dated 5-8-1954, from the President, Central Travancore Agriculturists' Association, Kanjirapally P. O., to the Secretary, Indian Central Coconut Committee, Ernakulam.

Subject:— Coconut Production in Travancore-Cochin State—Adverse effect on—of the proposed Travancore-Cochin State bill imposing ceiling on "Possession and Ownership of Landholdings".

I hope you have seen the draft bill published by the Travancore-Cochin State Government, imposing ceiling on "Possession and Ownership of Land-holdings". Among other things, it restricts the extent of coconut garden which an individual can hold to 15 acres, the excess, if any, with him being practically expropriated.

You are aware that unlike short-term crops such as paddy, wheat, cholam, cotton, tobacco, jute, etc., where the capital investment can be recouped within the year of cultivation, coconut cultivation involves long-term investment of capital. The coconut trees take 10 to 20 years, depending on the nature of soil and localities, to come to full bearing, and the capital locked up in the investment can be recouped only during a long period of years after the plantation come to full bearing.

2) The expropriation of the excess area of these gardens, above a certain ceiling (15 acres as now proposed) comprises not only the land, but the capital sunk in its development as well. It is understood that in Kashmir and some other places where restrictions on extent have been made, land utilised for permanent crops like *orchards*, in which capital has been sunk, have been excluded, from the purview of such legislation.

Coconut plantations are more expensive to develop, and take longer period to mature, than orchards Therefore, coconut plantations ought really to be excluded, like other long-term permanent plantations, such as tea, rubber, etc., from the scope of the proposed land ceiling bill in the Travancore-Cochin State.

3) A scare has now been created in the minds of owners of coconut gardens. So some have already started uprooting trees in established coconut gardens in some parts of the country, to bring the land under the category of "Paramba", or replanting with such trees as are excluded from the scope of the land ceilings bill. This is bound in course of time to effect *a serious fall in coconut* production in the State, and give a fillip to further increase of the import of copra from outside India.

4) I shall be glad if you will go into this question and bring this aspect of the possible fall in coconut production to the notice of the UNION GOVERNMENT, and press for the *exclusion* of coconut plantation from the purview of the proposed land ceiling bill in the Travancore-Cochin State, just as rubber, tea, etc.

Kindly let me have a line in acknowledgement.

Thanking you.

Copy of letter dated 17-8-1954 from Sri K. K. Kuruvilla,
Planter, Kannukuzhyil, Puthupally P.O., Kottayam,
T. C. State, to the Secretary, Indian Central
Coconut Committee, Ernakulam.

I am an agriculturist and there is no tenant under me no do I hold the land under any landlord. My land is cultivate directly by me with the help of hired labour. My main cultivatio is coconut and rubber and I write this to bring home to you th adverse effects of the proposed land legislation in Travancore Cochin on coconut plantation.

"The restriction on Possession and Ownership of Land Bill introduced by the Government in the Travancore-Cochi Legislative Assembly limits the extent of land that a family ca possess By this enactment nobody can possess either by himse or through any member of his family more land than 15 acres i double crop paddy land, 22½ acres if single crop paddy land, 1 acres if coconut garden or 30 acres if it is neither paddy field no coconut garden The excess land has to be either sold or lease to others within six months failing which the Land Tribunal to b constituted under the Act will take possession and lease to others The owner will be entitled only to get fair rent which is being fixed as three eights the gross produce of coconuts in the case o coconut gardens Coconut garden is defined as "any land used principally for growing coconut trees "

I was following with interest the advices and directions o the Indian Central Coconut Committee from the very beginning and am a subscriber of the Coconut Journal and the Coconu Bulletin published by the Committee.

Believing in the assurance and encouragement by the propaganda of the Committee regarding the advantages of large size coconut plantations I selected 45 acres of land, started coconut plantation there in 1945. Terracing for preventing erosion and other works have been done by me in the land. The bes available seedlings were planted In the matter of manuring and rearing up the plants I have carefully followed the advices given through the publications of the committee. There are more than 2000 trees in this block and some of them have commenced bearing. Within the coming 7 or 8 years these trees will become fully yielding if cultural operations are properly and efficiently continued.

For cultivating this area I have hitherto spent more than Rs. 80,000. I have also made arrangements for adopting chula drying system Compost manure pits on modern and scientific lines have also been constructed by me These involve a cost of over Rs. 7000.

As a result of the new enactment, I will be entitled to retain in my possession only 15 acres out of this area and will have to lease out the remaining 30 acres along with my other lands. My house is outside this area and so if I am to retain my homestead with some land around it I will have to part with the whole area newly planted with coconut palms.

The return I am to get out of this cultivation is 3/8 of the yield and the persons who occupy the land as lessees will be entitled to take the remaining 5/8. There are several others who have in recent years planted their lands with coconut trees. "A parrallel to the present legislation of the Government of Travancore-Cochin can be found only in the liquidation of Kulaks in U. S. S. R. during 1924-1930".

Apart from the deviation from the spirit of the constitution of India and the inequity in the legislation the effect of it on coconut production and expansion of coconut cultivation will be disastrous.

Rubber, tea, coffee and cardamom plantations which admeasures twenty-five acres or more are excluded from the operation of this enactment The idea behind this exclusion is encouragement of large scale plantations of those crops. Admittedly large scale plantation is more economic as the cost of production will be considerably less and conducive to more efficient management. Measures for preventing diseases of the trees can be adopted only in large scale plantations. These advantages are equally applicable to coconut and arecanut palms as in the case of rubber and tea. Coconut and arecanut are equally if not more important to the Nation. Then why this discrimination, passes one's comprehension.

The problem in this State is prevention of fragmentation of holdings and adoption of modern methods of cultivation advocated by Indian Central Coconut Committee and steps have to be taken for consolidation of holdings if production is to increase. But the idea of the Government seems to be further fragmentation of already overfragmented holdings.

The break-up of the present holdings in one's possession will create new situations causing great dislocation in the present crop-pattern itself.

The proposed enactment contemplates dispossessing holders of more than 15 acres under coconut cultivation whereas the possessor of land not cultivated with coconut trees can hold up

thereby visiting an extra punishment on the cocon
to 30 acres, thereby visiting an extra punishment on the cocon
cultivator The land owner will be tempted to destory the cocon
trees planted so as to enable him to retain possession of 30 acre
No person intending to cultivate his land with coconuts will do
hereafter because he will have to part with the excess over fifte
acres.

The attitude of the present Government of this State seer
to be bitterly inimical to the agriculturists. The Agricultu
Income Tax Act has amended by lowering the limit of taxab
income to Rs 1,500. Persons following other avocations of h
other than agriculture need pay income-tax only if the income
over Rs. 4,200. This is over and above the land tax.

If an industry is taken over by the State the owner will b
paid the whole value of the concern as compensation. But he
land plus the productive investment thereon is taken away witho
any compensation whatever except the right to get the "fair ren
which generally is the payment made by the tenant-cultivator
the land lord Here land is not given to the tiller but taken fro
the tiller and given to the favoured of the Land Tribunal.

The attempt of the Indian Central Coconut Committ
being all-round development of coconut industry it is their du
to point out to the State Government to the desirability
maintaining the industrial characteristics of coconut cultivation.

I have also to inform you that I am compelled to aband
the idea of planting some more area with coconut palms as leasi
uncultivated land is more profitable.

In the submissions made above, I have only referred
one aspect of the proposed legislation and I hope it is sufficient
convince you that this enactment will defeat the objective of th
Indian Central Coconut Committee.

This bill along with a few other Bills are submitted by th
State Government to the Central Government and they are bei
scrutinised by the Planning Commission and the State Ministry.

I request you to look into this matter and do what you c
to prevent the disastrous effects the proposed enactment w
produce on agriculture in general, and on coconut and arecan
plantation in particular.